

CURRICULUM STRUCTURE FOR DIPLOMA IN INFORMATION TECHNOLOGY

3RD SEMESTER

Sl. No.	Sub. Code	Name of the Subject	Teaching Scheme (hrs/wk)			Evaluation Scheme					Total marks
			L	T	P	Theory			Practical		
						End Exam	I.A	Assignment	End Exam	Sessional	
1	IT3T01	Data structure	4	1	0	80	15	5			100
2	IT3T02	Computer System Architecture	4	0	0	80	15	5			100
3	IT3T03	Digital Electronics	4	0	0	80	15	5			100
4	IT3T04	Management Information System	4	0	0	80	15	5			100
5	IT3T05	Engineering Mathematics - III	4	0	0	80	15	5			100
6	IT3P01	Data Structure Lab	0	0	6				50	50	100
7	IT3P02	Advanced C lab	0	0	6				50	25	75
8	IT3P03	M. I. S. Lab	0	0	6				50	25	75
		TOTAL	20	1	18	400	75	25	150	100	750

L T P
4 1 0

Theory :100
End Term Exam : 80
I.A. : 20

RATIONALE

The effectiveness of implementation of any application in computer mainly depends on, how effectively its information can be stored in the computer. For this purpose various structures are used. This paper will expose the students to various fundamentals structures arrays, stacks, queues, trees etc. It will also expose the students to some fundamental, I/O manipulation techniques like sorting, searching etc.

1.0 INTRODUCTION:	04
1.1 Concepts of Data, Information, data types	
1.2 Data structure & Explain different operations	
1.3 Abstract & physical data types	
1.4 Algorithms & their complexities	
1.5 Time, space tradeoff	
2.0 ARRAYS	07
2.1 Introduction	
2.2 Linear arrays, representation of linear array In memory	
2.3 traversing linear arrays, inserting & deleting elements	
2.4 Multidimensional arrays, representation of two dimensional arrays in memory (row major order & column major order), and pointers	
2.5 Sparse matrices.	
3.0 STRING PROCESSING	03
3.1 Basic Terminology, Storing Strings	
3.2 Character Data Type,	
3.3 String Operations, e.g string concatenation, reversal etc. Pattern Matching Algorithms	
4.0 STACKS & QUEUES	08
4.1 Fundamental idea about Stacks and queues as LIFO & FIFO structure	
4.2 Array representation of Stacks	
4.3 Arithmetic expression , polish notation & conversion from infix to postfix using stack	
4.4 Application of stacks, recursion	
4.5 Queues, circular queue, priority queues.	
5.0 LINKED LIST	08
5.1 Introduction to linked lists	
5.2 Representation of linked lists in memory	
5.3 Traversing a linked list, searching	
5.4 Garbage collection	
5.5 Insertion into a linked list, Deletion from a linked list, header linked list	
5.6 Doubly linked list, circular linked lists.	

6.0 TREE	08
6.1 Basic terminology of Tree	
6.2 Binary tree, its representation and traversal, Threaded Binary Tree, binary search tree, searching, binary trees	
6.3 Insertion & deletion in a binary search tree	
6.4 Heap, heap sort	
6.5 General trees	

7.0 GRAPHS	06
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7.1 Graph terminology & its representation,	
7.2 Adjacency Matrix, Path Matrix	
7.3 Warshall's algorithm, shortest paths	
7.4 Linked representation of a graph, operation on Graphs, traversing a graph.	

8.0 SORTING & SEARCHING	08
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8.1 Algorithms for Bubble sort, Selection sort, Insertion sort, Quick sort, Radix Sort, Merge-sort	
8.2 Merging	
8.3 Elementary search techniques such as Linear search, Binary search.	

9.0 FILES	
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9.1 Different types of files organization and their access method,	
9.2 Hashing, Hash function, collision resolution, open addressing, Linear Probing & modification, chaining.	

1. Data Structure by S. Lipschutz - (Schaum Series)
2. Introduction to Data Structure in C by :A.N.Kamthane; Pearson Education
3. Data Structure A pseudocode approach with C, Gilburg, Forouzen Cengage Learning
4. Data Structure & Algorithms; PAI; TMH

COMPUTER SYSTEM ARCHITECTURE

L	T	P	Theory	:100
4	1	0	End Term Exam	: 80
			I.A.	: 20

Topic	Periods
1. Basic structure of computer hardware	05
1.1 Basic Structure of computer hardware	
1.2 Functional Units	
1.3 Computer components	
1.4 Bus Structure	
1.5 Performance measures	
1.6 Memory addressing & Operations	
2. Instructions & instruction sequencing	05
2.1 Fundamentals to instructions	
2.2 Operands	
2.3 Op codes	
2.4 Instruction formats	
2.5 Addressing techniques	
2.6 Addressing Modes	
3. Arithmetic operations	05
3.1 Basic arithmetic operation	
3.2 Floating point representation	
3.3 Floating point arithmetic operation	
4. Processor System	10
4.1 Design of ALU	
4.2 Registers files	
4.3 Data path design	
4.4 Bit slice processor	
4.5 Basic memory operation	
4.6 Complete instruction execution	
4.7 Hard wired control	
4.8 Microprogrammed control	
5. Memory System	10
5.1 Memory characteristics	
5.2 Memory – processor data transfer	
5.3 Semiconductor RAM	
5.4 ROM	
5.5 Interleaved Memory	
5.6 Cache memory	
5.7 Virtual memory	

6. Input – Output System **10**

- 6.1 Input - Output Operation
- 6.2 Programmed I/O
- 6.3 Interrupt driven I/O
- 6.4 DMA
- 6.5 I/O Channel architecture

7. I/O Interface & Bus architecture **10**

- 7.1 Bus interconnection
- 7.2 Bus structure
- 7.3 Basic parameters of Bus design
- 7.4 Peripheral component interconnect Bus
- 7.5 SCSI
- 7.6 USB

8. Parallel Processing **05**

- 8.1 Parallel Processing
- 8.2 Linear PipeLine
- 8.3 Multiprocessor
- 8.4 Flynn's Classification

Books

Fundamentals of Computer Architecture ; By; Parthasarthy , Senthil Kumar; TMH
Computer System Arcitecture: Moris Mano, PHI

Digital Electronics

L T P
4 0 0

Theory :100
End Term Exam : 80
I.A. : 20

RATIONALE

All the modern computer operate on the principles of digital electronics. This subject will introduces the various concepts of digital electronics like, various number system, logic gates, Boolean algebra etc. to the students. By going through this paper, the student will acquaint him self to the various basic digital circuits like flip-flops, multi-vibrators etc., which are the main constituents of the digital computers.

COURSE CONTENT

PERIODS

1. NUMBER SYSTEM

05

- 1.1 Discuss number system and radix.
- 1.2 Describe different number systems.
- 1.3 Compute binary addition, subtraction, multiplication and division.
- 1.4 Perform binary to decimal conversion and vice versa.
- 1.5 Convert binary to octal and vice versa.
- 1.6 Perform binary to hexadecimal conversion and vice versa.
- 1.7 Solve decimal to octal conversion and vice versa.
- 1.8 Convert decimal to hexadecimal conversion and vice versa.
- 1.9 Do 1's complement and 2's complement.
- 1.10 Study need for 1's and 2's complement.
- 1.11 Compute subtraction using 1's and 2's complement.
- 1.12 Solve different examples regarding different codes.

2. BINARY CODES

04

- 2.1 State and explain binary code.
- 2.2 Differentiate between weighted and non-weighted code.
- 2.3 Describe BCD code, XS-3 code, Gray code.
- 2.4 Perform BCD addition and subtraction.
- 2.5 Distinguish between ASCII and EBCDIC code.
- 2.6 Convert BCD to XCS-3 code and vice versa.
- 2.7 Do the BCD to gray code conversion and vice versa.
- 2.8 Describe the XS-3 to Gray code conversion and vice versa.
- 2.9 Solve different examples regarding different codes.

3. LOGIC GATES

04

- 3.1 State and explain logic gate.
- 3.2 Discuss different types of digital logic system.
- 3.3 Draw OR, AND, NOT, XOR, XNOR Gates with their truth table.
- 3.4 Describe universal logic gate.
- 3.5 Discuss NAND and NOR gate with their truth table.
- 3.6 Convert all the logic gate outputs using universal logic gate.
- 3.7 Draw the pin diagram of different logic gate ICs.

4. BOOLEAN ALGEBRA & COMBINATIONAL LOGIC.

05

- 4.1 Study the theorems & postulates of Boolean algebra.
- 4.2 Differentiate between combinational logic circuit & sequential logic circuit.

- 4.3 Describe the relation of Boolean algebra to switching elements.
- 4.4 Obtain Boolean expression from a truth table.
- 4.5 State & explain K-Map.
- 4.6 Describe a 2-variable, 3-variable & 4-variable K-Map.
- 4.7 Determine the minimal equation.
- 4.8 Compute minimal equations for SOP & POS.
- 4.9 Explain expression graphical representation of Boolean functions.

5. FUNCTIONS OF COMBINATIONAL LOGIC

08

- 5.1 Explain the necessity of combinational circuit.
- 5.2 Design a Half-Adder & Full-Adder circuit.
- 5.3 Describe & design Half-Subtractor & Full-Subtractor.
- 5.4 Convert the entire adder & subtractor circuit using universal logic gates.
- 5.5 Study parallel binary adder.
- 5.6 Discuss a magnitude comparator circuit with expression.
- 5.7 Define encoder & decoder.
- 5.8 Describe the decoder circuit for binary to gray, BCD to decimal & BCD to 7-segment.
- 5.9 Discuss the encoder circuit for
 - 5.9.1 Gray to Binary.
 - 5.9.2 BCD to XS-3.
 - 5.9.3 XS-3 to BCD.
- 5.10 Differentiate between MUX & DEMUX.
- 5.11 Describe 4 to 1 line, 8 to 1 line MUX.
- 5.12 Show the principle of operation of 1 to 16 lines DE-MUX.
- 5.13 Study parity generator/checker circuit.

6. FLIP- FLOPS & MULTIVIBRATORS

08

- 6.1 Classify different types of flip-flops.
- 6.2 Study of a RS FF using NAND & NOR gate.
- 6.3 Draw the waveforms for clock RS FF with its operation.
- 6.4 Explain edge-triggered Multivibrator.
- 6.5 Describe a DFF with its waveform.
- 6.6 Describe a TFF with its waveform.
- 6.7 Describe the working principle of master-slave J-K FF with its waveforms.
- 6.8 Explain the conversion from.
 - 6.8.1 JK FF to SR FF.
 - 6.8.2 JK FF to T FF.
 - 6.8.3 JK FF to D FF.
- 6.9 Study flip-flop application.
- 6.10 Solve different problems regarding flip-flop.

7. COUNTERS & SHIFT REGISTERS

08

- 7.1 Define counter & shift register.
- 7.2 Differentiate between ripple & synchronous counter.
- 7.3 Describe the working of a 4-bit ripple counter.
- 7.4 Distinguish between.
 - 7.4.1 4-bit synchronous serial counter.
 - 7.4.2 4-bit synchronous parallel counter.
- 7.5 Study the module N counter.
- 7.6 Explain divide by N counter.
- 7.7 Design a skipping state counter.
- 7.8 Describe & design.
 - 7.8.1 Mod-6 counter.
 - 7.8.2 Mod-12 counter.
 - 7.8.3 Decade counter.

- 7.9 Describe the working of a Ring counter.
- 7.10 Study Johnson counter.
- 7.11 Study counter application.
- 7.12 Describe the working of a;
 - 7.12.1 4-bit serial-in-serial-out (SISO) shift register.
 - 7.12.2 4-bit serial-in-parallel-out (SIPO) shift register.
 - 7.12.3 4-bit parallel-in-serial-out (PISO) shift register.
 - 7.12.4 4-bit parallel-in-parallel-out (PIPO) shift register.
- 7.13 Discuss the shift register applications.

8. MEMORIES

06

- 8.1 State & explain.
- 8.2 Explain ROM, PROM, EPROM, & E² PROM.
- 8.3 Differentiate between ROM & RAM.
- 8.4 Study different types of RAM.
- 8.5 Distinguish between SRAM & DRAM.
- 8.6 Study detail structure of memory expression.
- 8.7 Describe magnetic bubble memories.
- 8.8 Describe the working principle of magnetic disk memories.
- 8.9 Explain special memories like CCD & CD-ROM.
- 8.10 Discuss memory applications.

9. D/A & A/D CONVERTERS

06

- 9.1 Describe D/A & A/D converter.
- 9.2 Draw a weight-register type D/A converter circuit with neat sketch.
- 9.3 Discuss a ladder type D/A converter circuit.
- 9.4 Compare the features of A/D conversion method.
- 9.5 Study of a Dual-slope A/D converter.
- 9.6 Describe a Successive approximation A/D converter circuit.
- 9.7 Discuss D/A applications.

10. INTRODUCTION TO DIGITAL LOGIC FAMILIES

06

- 10.1 Discuss logic family.
- 10.1 Explain different types of TTL & CMOS logic gate ICs.
- 10.2 Study different characteristics of logic families ICs.
- 10.3 Study different characteristics of logic families like;
 - 10.3.1 Propagation delay.
 - 10.3.2 Power dissipation.
 - 10.3.3 Operating temp.
 - 10.3.4 Fan-in.
 - 10.3.5 Fan-out.
 - 10.3.6 Voltage level.
 - 10.3.7 Relative cost.
- 10.4 Study the pin-out connection of digital IC chips.

Total 60

TEXT BOOKS

- 1. Digital Electronics by R.K.Gaur.
- 2. Digital principle by R.P.Jain.
- 3. Digital Electronics by Floyad.
- 4. Switching, they & logic design by V.K.Jain.
- 5. Principle of Digital Electronics by Morris & Mano.

Management Information System

L	T	P	Theory	:100
4	0	0	End Term Exam	: 80
			I.A.	: 20

RATIONALE

Management Information System is the basic foundation paper for any hardcore computer engineer. In this subject students will be exposed to the theoretical aspects of different functional units of a digital computer and fundamental idea how different units of a computer system work together to achieve a common goal.

COURSE CONTENT

PERIODS

1. Management Information System An Overview	06
1.1 Introduction	
1.2 Management Information System	
1.3 Definition of MIS	
1.4 Framework for MIS Organisation and Management Triangle	
1.5 Information needs and its Economics	
1.6 System Approach	
1.7 Meaning and Objective of MIS	
1.8 Disadvantages of Information System	
1.9 Approaches of MIS Development	
1.10 Constraints in Developing an MIS	
1.11 MIS and Use of Computer	
1.12 Limitations of MIS	
1.13 Computer based Information System	
2. Information System for Decision Making	05
2.1 Introduction	
2.2 Transaction Processing System	
2.3 Management Information System	
2.4 Intelligent Support System	
2.5 Office Automation System	
3. Data Communication System	05
3.1 Introduction	
3.2 Telecommunication System	
3.3 Data Communication Hardware	
3.4 Data Communication Software	
3.5 Communication Networks	
3.6 Distributed Systems	
3.7 Topology of Computer Network	
3.8 Protocols and Network Architecture	
3.9 Open System Interconnection (OSI)	
3.10 Network Management	
4. Database Management technology	05
4.1 Introduction	
4.2 Data vs. Information	
4.3 Data Hierarchy	
4.4 Methods for Organising Data in files	
4.5 Limitations of File-based- systems	
4.6 Database and Database Management System	
4.7 Object Oriented Database Structure	

4.8	Entity Relationship Diagram	
4.9	Fourth Generation Languages (4GLs)	
4.10	Recent Development in Database	
4.11	Principle of Database Management	
4.12	The Database Administrator	
5.	Client- Server Computing	04
5.1	Introduction	
5.2	Definition of Client-Server Computing	
5.3	Components and functions of a Client-Server System	
5.4	Development of Client-Server System	
5.5	Client-Server Security	
5.6	Client-Server Costs Computations	
5.7	Advantages of Client-Server Systems	
5.8	Disadvantages/ Obstacles of a Client-Server System	
6.	Decision Support System	05
6.1	Introduction	
6.2	Definitions	
6.3	Evolution of DSS	
6.4	Objectives of DSS	
6.5	Classifications of DSS	
6.6	Characteristics of DSS	
6.7	Components of DSS	
6.8	Functions of a DSS	
6.9	Development of DSS	
6.10	Group Decision Support system	
6.11	Executive Information System	
6.12	Success Criteria for DSS/ EIS	
6.13	Relationship between MIS and DSS	
6.14	DSS measures of success in organizations	
6.15	Applications of a DSS	
6.16	TPS, MIS, DSS and EIS	
6.17	Future Development in DSS	
7.	Information System in Business	04
7.1	Introduction	
7.2	Functional Areas of Business	
7.3	Manufacturing Information System	
7.4	Marketing Information Systems	
7.5	Quality Information Systems	
7.6	Financial and Accounting Information Systems	
7.7	Research and Development Information Systems	
7.8	Human Resource Information Systems	
7.9	Geographical Information Systems	
7.10	Cross-Functional systems	
8.	Systems Analysis and Design	05
8.1	Introduction	
8.2	System Development Life Cycle (SDLC)	
8.3	Prototyping	
8.4	Rapid Application Development (RAD)	
8.5	End-User Computing	
8.6	Software Packages outsourcing	
8.7	Comparison of IS Development Methodologies	
8.8	Other Tools for IS Development	
8.9	Computer Aided Software Engineering	

8.10	Challenges in Developing Information Systems	
9.	Strategic Management Information System	03
9.1	Introduction	
9.2	Characteristics of SMIS	
9.3	Strategic Planning for MIS	
9.4	Development of SMIS	
9.5	MIS Strategy Implementation	
9.6	Barriers to Development of SMIS	
10.	Information Resources Management	05
10.1	Introduction	
10.2	Principles of IRM	
10.3	IRM Objectives	
10.4	Functional Components of IRM	
10.5	Organisation of Information Resources Function	
10.6	Application of Scarce IS Resources	
10.7	Management of Information Systems Personnel	
10.8	Management of End-User Computing	
10.9	A Proactive CIO Strategy	
11.	Enterprise Resource Planning	08
11.1	Introduction	
11.2	Enterprise Modelling	
11.3	Role of Information Technology in Enterprise Modelling	
11.4	Flow of Information	
11.5	Role of Common/ shared Enterprise Database	
11.6	Selection of ERP	
11.7	Application of POC approach	
11.8	Material requirement planning	
11.9	Manufacturing Resource Planning (MRP II)	
11.10	Business Process Re-Engineering (BPR)	
11.11	ERP Implementation Methodology	
11.12	Principle for ERP Implementation	
11.13	Guideline for ERP Implementation	
11.14	Causes for failure in ERP Implementation	
11.15	Sample list of ERP vendors	
11.16	ERP Software packages (SAP)	
12.	Applications of Information Technology in Business	05
12.1	Introduction	
12.2	E-Commerce (EC)	
12.3	Commerce over the Internet	
12.4	Electronic Cash over the Internet	
12.5	Internet Security	
12.6	Electronic Business (E-Business)	
12.7	Application of E-Commerce in India	
12.8	Successful E-Commerce	
12.9	Mobile Commerce	
12.10	E-Governance	

Books

1. Management Information System; By : Dr. A.K.Gupta (S.Chand & Company Ltd)

Engineering Mathematics – III

L	T	P	Theory	: 100
4	0	0	End Term Exam	: 80
			I.A.	: 20

OBJECTIVE

On completion of study of Engineering Mathematics - III the students will be able to:

1. Apply matrices in Engineering mechanics, electrical circuits & linear programming.
2. Transform Engineering problems to mathematical models with the help of differential equation & familiarise with the methods of solving by analytical method, transform method, operator method & numerical method.
3. Solve algebraic & transcendental equations by iterative methods easily programmable in computers.
4. Analyse data & develop interpolating polynomials through method of difference.

COURSE CONTENT

PERIODS

1. MATRICES

04

- 1.1 Define rank of a matrix.
- 1.2 Perform elementary row transformation to determine rank of a matrix.
- 1.3 Define Rouché's Theorem for consistency of a system of linear equations in n unknowns.
- 1.4 Solve equations in three unknowns testing consistency.

2. LINEAR DIFFERENTIAL EQUATION

12

- 2.1 Define homogeneous & non homogeneous diff. Equations with constant coefficient with examples.
- 2.2 Find general solution of linear equations in terms of C.F & P.I.
- 2.3 Derive rules of finding C.F & P.I in terms of operator D .
- 2.4 Explain method of variation of parameter to solve equation of the form $y''+py'+qy=f(x)$.
- 2.5 Describe methods of solutions of Cauchy's & Legendre's linear equation with variable coefficient.
- 2.6 Define partial differential equations(P.D.E.).
- 2.7 Form partial differential equations by eliminating arbitrary constants & arbitrary functions.
- 2.8 Solve partial differential equations of the form $Pp+Qq=R$.
- 2.9 Derive rules of finding C.F and P.I of Homogeneous linear partial differential equation with constant coefficient solve problems in relation to O.D.E. & P.D.E.

3. LAPLACE TRANSFORM (L.T.)

12

- 3.1 Define Gamma function and $\Gamma(n+1) = n!$ and find $\Gamma(1/2) = \sqrt{\pi}$ (No problem).
- 3.2 Define laplace transform of a function $f(t)$ & inverse laplace transform.
- 3.3 Derive L.T of standard functions and explain existence conditions of L.T.
- 3.4 Explain linearity, shifting and change of scale property of L.T.
- 3.5 Formulate L.T of derivatives, integrals, multiplication by t^n , division by t .
- 3.6 Derive formula of inverse L.T.
- 3.7 State and derive convolution theorem.
- 3.8 Solve linear differential equation with constant coefficients associated with initial conditions using transform method.

- 3.9 Define unit step function and derive second shifting property.
- 3.10 Solve problem from 3.3 to 3.9.

4. FOURIER SERIES (F.S.)

12

- 4.1 Define periodic functions.
- 4.2 State Dirichlet's conditions for the Fourier expansion of a function and its convergence.
- 4.3 Express periodic function $f(x)$ satisfying Dirichlet's conditions as a Fourier series
- 4.4 State Euler's formulae.
- 4.5 Obtain F.S of continuous functions & functions having points of discontinuity
- 4.6 Obtain F.S of functions having arbitrary period.
- 4.7 Define even and odd functions and obtain their F.S.
- 4.8 Explain half range series.
- 4.9 Solve problems on 4.1 to 4.8.

5. NUMERICAL METHODS

04

- 5.1 Appraise limitation of analytic method of solution of algebraic & transcendental equations.
- 5.2 Derive iterative formula for finding solutions of algebraic & transcendental equations by
 - 5.2.1 Bisection method.
 - 5.2.2 Method of false position.
 - 5.2.3 Newton Raphson method.
- 5.3 Solve problems on 5.2.

6. FINITE DIFFERENCE & INTERPOLATION

12

- 6.1 Explain finite difference & form table for forward & backward difference.
- 6.2 Explain differences of a polynomial and express it in factorial notation.
- 6.3 Define shift operator E and establish relation between E ,
- 6.4 Derive Newton's forward and backward interpolation formula for equal interval.
- 6.5 State Lagrange's interpolation formula for unequal intervals.
- 6.6 Derive numerical differentiation using forward and backward difference.
- 6.7 Explain numerical integration and state
 - 6.7.1 Newton-Cotes's formula.
 - 6.7.2 Trapezoidal rule.
 - 6.7.3 Simpson's 1/3 rule.
- 6.8 Solve problems on 6.1 to 6.7.

7. NUMERICAL SOLUTION OF ORDINARY DIFFERENTIAL EQUATIONS

04

- 7.1 State and explain formula for solving ordinary differential equations using
 - 7.1.1 Taylor's series method.
 - 7.1.2 Euler's method.
 - 7.1.3 Runge-Kutta method up to 4th order.

TEXT BOOKS

- 1. Higher Engineering Mathematics by Dr. B.S.Grewal.

REFERENCE

- 1. Numerical Methods by Goel & Mittal
- 2. A Text Book of Matrix Algebra by S. Biswas
- 3. Numerical Methods for Engineering by S. K. Gupta
- 4. Partial Differential Equation by P. Prasad & R. Rabindran
- 5. Theory of Matrices by Vatssa

DATA STRUCTURE LAB USING C

L T P
0 0 6

Practical : 50
Sessional : 50

Design, write, run and test computer programs using C language for the following set of tasks / problems.

1. Implementation of 1D & 2D Array
2. Implementation of Stack
3. Implementation of insertion & deletion in Stack
4. Implementation of insertion & deletion in Queue
5. Implementation of insertion & deletion in Linked list
6. Implementation of Insertion sort
7. Implementation of Selection sort
8. Implementation of Bubble sort
9. Implementation of Quick sort
10. Implementation of Heap sort
11. Implementation of Radix sort
12. Implementation of Binary tree traversal
13. Implementation of Linear search
14. Implementation of Binary search

Books :

1. Computer lab referral for diploma students ; T.R.Jagadesh; Unv. S. Press
2. Data Stru. Data Structure A pseudocode approach with C, Gilburg,Forouzen Cengage Learning

ADVANCE C LAB

L T P
0 0 6

Practical : 50
Sessional : 25

1. Writing Program using Array
2. Writing Program using Strings
3. Writing Program using Functions
4. Writing Program using Structure
5. Writing Program using Unions
6. Writing Program using Pointers
7. Writing Program using file handling using C

MIS Lab

L T P
0 0 6

Practical : 50
Sessional : 25

Introduction to FOXPRO

Introduction, Special features of FoxPro, Starting FoxPro, Terminologies used in FoxPro File/Table-Record-Fields, Conventions used for naming fields, Data types

Understanding Databases

Introduction, Opening a Table/Database, Adding records in a table, Close a file

Retrieving and Editing the Data

Introduction, List, Display, Record pointer, Moving the record pointer - Goto -Skip, Modifying data-Edit-Browse

Managing Databases

Introduction, Sorting, Indexing, Searching for record within the database -Locate-Find-Seek

Working with Reports

Introduction, Creating a report format, Generating a report, Previewing the Report- Grouping of data-Subtotals-Grand total

Getting Started with Programming

Introduction, Commands for writing programs - Say - Get-Read - Valid - Range, Picture, Input Accept - Cancel, Branching concepts - If-endif - Do case Otherwise

Programming Structures

Introduction, Looping commands - Do while - For-End for

Small project in FOXPRO

Introduction to MS Access and elementary data processing with Access.