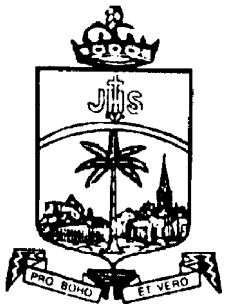
M.Sc. INFORMATION TECHNOLOGY

SYLLABUS: 2010-2012

CHOICE BASED CREDIT SYSTEM
(CBCS)



St. JOSEPH'S COLLEGE (Autonomous)

Re-accredited with A⁺ Grade by NAAC

College with Potential for Excellence by UGC

TIRUCHIRAPPALLI - 620 002, INDIA

FEATURES OF CHOICE BASED CREDIT SYSTEM

PG COURSES

The Autonomous (1978) St. Joseph's College, Reaccredited with A+ Grade from NAAC (2006), had introduced the Choice Based Credit System (CBCS) for PG courses from the academic year 2001 – 2002. As per the guidelines of Tamil Nadu State Council of Higher Education (TANSCHE) and the Bharathidasan University, the College has reformulated the CBCS in 2008 – 2009 by incorporating the uniqueness and integrity of the college.

OBJECTIVES OF THE CREDIT SYSTEM

- To provide mobility and flexibility for students within and outside the parent department as well as to migrate between institutions
- To provide broad-based education
- To help students learn at their own pace
- To provide students scope for acquiring extra credits
- To impart more job oriented skills to students
- To make any course multi-disciplinary in approach

What is credit system?

Weightage to a course is given in relation to the hours assigned for the course. Generally one hour per week has one credit. For viability and conformity to the guidelines credits are awarded irrespective of the teaching hours. The following Table shows the relation between credits and hours.

Sem.	Specification	No. of Papers	Hour	Credit	Total Credits
I – IV	Core Courses (Theory & Practical)	14	6	14 x 5	70
	Project	1	--	1 x 5	Additional
I – IV	3 – Core Electives	3	4	3 x 4	12
	2 – Inter Dept. Courses (IDC)	2	4	2 x 4	08
I – IV	SHEPHERD – Extension Activity	~	70	5	Additional

Total Minimum Credits	90
Total Additional Credits (Compulsory)	10
Other Additional Credits (Dept. Specific)	....

However, there could be some flexibility because of practical, field visits, tutorials and nature of project work.

For PG courses a student must earn a minimum of 90 credits and 10 compulsory credits as mentioned in the above table. The total number of courses offered by a department is 20. However within their working hours a few departments can offer extra credit courses.

Course Pattern

The Post Graduate degree course consists of three major components. They are Core Course, Elective Course and Inter Department Course (IDC) . Also 2 compulsory components namely Project / Project related items and Shepherd, the extension components are mandatory.

Core Course

A core course is the course offered by the parent department, totally related to the major subject, components like Practical, Projects, Group Discussion, Viva, Field Visit, Library record form part of the core course.

Elective Course

The course is also offered by the parent department. The objective is to provide choice and flexibility within the department. The student can choose his/her elective paper. Elective is related to the major subject. The difference between core course and elective course is that there is choice for the student. The department is at liberty to offer three elective courses any semester. It must be offered at least in two different semesters. The Staff too may experiment with diverse courses.

Inter Department Course (IDC)

IDC is an inter departmental course offered by a department for the students belonging to other departments. The objective is to provide mobility and flexibility outside the parent department. This is introduced to make every course multi-disciplinary in nature. It is to be chosen from a list of courses offered by various departments. The list is given at the end of the syllabus copies. Two IDC s must be taken by students which are offered in Semester II & III.

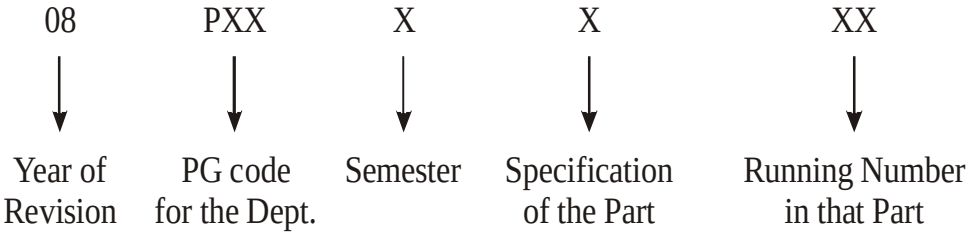
Day College (Shift-I) student may also take an IDC from SFS (Shift-II) course and vice versa

This provision enables students to earn extra credits. For the Shift – I students it is offered in their last hour and for the Shift-II

(Course) students in their first hour. The IDC are of application oriented and inter-disciplinary in nature.

Subject Code Fixation

The following code system (9 characters) is adopted for Post Graduate courses:



01 – Core Courses: Theory & Practical
02 – Core electives
03 – Additional Core Papers (if any)
04 – Inter Departmental Courses
05 – Project (compulsory)
06 – Shepherd (compulsory

CIA Components

The CIA Components would comprise of two parts: (1) Test Components conducted by Controller of Examination (COE) and (2) Teacher specific component. The two centralized tests will be conducted by the COE (Mid-Semester Test & End-Semester Test) for 30% each administered for 1 hour and 30 minutes duration. The remaining 40% would comprise of any four components as listed below and will be carried out by the faculty concerned for that paper.

- Assignment, Quiz (Written / Objective), Snap test, Viva-Voce, Seminar, Listening Comprehension, Reading Comprehension, Problem Solving, Map Reading, Group Discussion, Panel Discussion, Field Visit, Creative Writing, Open Book Test, Library Record, Case Study.
- As a special consideration, students who publish papers in referred journals would be exempted from one of the teacher specific internal components in one of the papers. At the beginning of each semester, the four internal components would be informed to the students and the staff will administer those components on the date specified and the marks acquired for the same will be forwarded to the Office of COE.

Question Pattern

Pattern	Mid & End Semester Test	Semester Exam
Part A : Objective	10 x 0.5 = 05	20 x 1 = 20
Part B : Either/or type	3 x 3 = 09	5 x 4 = 20
Part C : Comprehensive	(2/3) 2 x 8 = 16	(4/5) 4 x 15 = 60
	Total = 30	Total = 100

Evaluation

For each course there are formative continuous internal assessment (CIA) and semester examinations (SE) in the weightage ratio 50:50. Once the marks of CIA and SE for each course are available, the Overall Percentage Mark (OPM) for a student in the programme will be calculated as shown below:

$$OPM = \frac{\sum_i C_i M_i}{\sum_i C_i}$$ where Ci is the credit earned for that course in any semester and Mi is the marks obtained in that course.

The Scheme of Over-all Results is as follows:

	PG	
Class	Arts (OPM)	Science (OPM)
SECOND	50 to 59.99	50 to 59.99
FIRST	60 to 74.99	60 to 79.99
DISTINCTION	75 & Above	80 & Above

The performance in Compulsory credits in Project and Project related items and in Shepherd programme is indicated by a pass and is not taken into account for computing OPM.

Declaration of Result

Mr. /Ms. _____ has successfully completed M.Sc. / M.A. degree course in _____. The student's overall average percentage of marks is _____ and has completed the minimum 90 credits. The student has acquired 10 more compulsory credits from Project and Shepherd courses. The student has also acquired _____ (if any) extra credits from courses offered by the parent department.

COURSE DETAIL

SEM	CODE	SUBJECT	HR	CR
I	10PIT 1 1 01	DATA BASE SYSTEMS	5	5
	10PIT 1 1 02	OOAD & UML	5	5
	10PIT 1 1 03	C AND DATA STRUCTURES	5	5
	10PIT 1 1 04	NUMERICAL APTITUDE	2	2
	10PIT 1 1 05	LAB: C AND DATA STRUCTURES	5	5
	10PIT 1 1 06	LAB: RDBMS & D2K	4	4
	10PIT 1 2 01A	ELECTIVE I: OPERATING SYSTEM (OR)	4	4
	10PIT 1 2 01B	ELECTIVE I: MIS	(4)	(4)
		Total For Semester I	30	30
II	10PIT 2 1 07	JAVA PROGRAMMING	5	5
	10PIT 2 1 08	DISTRIBUTED TECHNOLOGIES	5	5
	10PIT 2 1 09	COMPUTER COMMUNICATION NETWORKS	5	5
	10PIT 2 1 10	INTER PERSONAL SOFT SKILLS	2	2
	10PIT 2 1 11	LAB: JAVA	5	5
	10PIT 2 1 12	LAB: DISTRIBUTED TECHNOLOGIES	4	4
	10PIT 2 4 01A	IDC I: FUNDAMENTALS OF IT (OR)	4	4
	10PIT 2 4 01B	IDC I: WEB DESIGN	(4)	(4)
		Total For Semester II	30	30
III	10PIT 3 1 13	SOFTWARE ENGINEERING	5	5
	10PIT 3 1 14	DATA WAREHOUSING & DATA MINING	5	5
	10PIT 3 1 15	XML & WEB SERVICES	5	5
	10PIT 3 1 16	MINI PROJECT	3	3
	10PIT 3 2 02A	ELECTIVE II: SOFTWARE TESTING (OR)	4	4
	10PIT 3 2 02B	ELECTIVE II: PROJECT MANAGEMENT	(4)	(4)
	10PIT 3 2 03A	ELECTIVE III: MULTIMEDIA (OR)	4	4
	10PIT 3 2 03B	ELECTIVE III:CYBER SECURITY	(4)	(4)
	10PIT 3 4 02A	IDC II: FLASH (OR)	4	4
	10PIT 3 4 02B	IDC II: DREAMWEAVER	(4)	(4)
		Total For Semester III	30	30
IV	10PIT 4 5 01	MAJOR PROJECT		5
II-III		EXTENSION SERVICE: SHEPHERD		5
		TOTAL FOR ALL SEMESTERS	100	100

Sem : I Hours/Week : 5
10PIT 1 1 01 Credits : 5

DATABASE SYSTEMS

AIM

To offer exposure to the design and manipulation of database systems.

UNIT I 13 Hrs

INTRODUCTION: Database Systems Application - Database System versus File System - View of Data - Data Models - Database Languages - Database Users and Administrators - Transaction Management - Database Systems Structure. ENTITY-RELATIONSHIP MODEL: Basic Concepts - Constraints - Keys - E-R Diagram - Extended E-R features. RELATIONAL MODEL: Structure of Relational Database - Relational Algebra.

UNIT II 13 Hrs

SQL: Basic Structure - Set Operations - Aggregate Functions - Null Values - Nested Sub Queries - Views - Complex Queries - Modification of the Database - Joined Relations - DDL - Embedded SQL. INTEGRITY AND SECURITY: Domain Constraints - Referential Integrity - Assertion - Triggers. OBJECT- ORIENTED DATABASE: Object-Oriented Data Model - QBE.

UNIT III 13 Hrs

NORMALIZATION: Non-loss Decomposition and Functional Dependencies - First, Second and Third Normal Forms - Dependency Preservation - Boyce/Codd Normal Form - Multivalued Dependencies and Fourth Normal Form - Join Dependencies and Fifth Normal Form.

UNIT IV 13 Hrs

TRANSACTION MANAGEMENT: Transaction Concept - Transaction State - Implementation of Atomicity and Durability -

Concurrent Executions - Serializability - Recoverability - Testing for Serializability. CONCURRENCY CONTROL: Lock Based Protocols - Timestamp Based Protocols - Deadlock Handling. RECOVERY SYSTEM: Failure Classification - Storage Structure - Log Based Recovery - Shadow Paging.

UNIT V 13 Hrs

DISTRIBUTED & PARALLEL DATABASES: Distributed Data Storage - Distributed Transaction - Distributed Query Processing. PARALLEL DATABASES: I/O Parallelism - Interquery Parallelism - Intraquery Parallelism - Intraoperation parallelism - Interoperation Parallelism - Design of Parallel System.

BOOKS FOR STUDY

1. Silberschatz, Korth & Sudarshan, "Database System Concepts", 4th Ed., McGraw-Hill, California, 2002.

   Units: I, II, IV, V

2. C.J. Date, "An Introduction to Database Systems", Pearson Education, New Delhi, 2005.

   Unit: III

BOOK FOR REFERENCE

Bipin C. Desai, "An Introduction to Database Systems", Galgotia Pub., New Delhi, 1999.

Sem : I Hours/Week : 5
10PIT 1 1 02 Credits : 5

OOAD & UNIFIED MODELING LANGUAGE

AIM

To impart knowledge about UML concepts and OOAD.

UNIT I 13 Hrs

COMPLEXITY: The Inherent Complexity of Software – The Structure of Complex Systems – Bringing Order to Chaos – On Designing Complex Systems – Categories of Analysis and Design Methods. THE OBJECT MODEL: The Evolution of Object Model – Elements of Object Model – Applying the Object Model – Foundations of the Object Model.

UNIT II 13 Hrs

CLASSES AND OBJECTS : The Nature of an Object – Relationships Among Objects – The Nature of a Class – Relationship Among Classes – The Interplay Classes and Objects – Key Abstraction and Mechanisms – A Problem of Classification.

UNIT III 13 Hrs

INTRODUCTION: Modeling - Importance of Modeling – Principles of Modeling – Object Oriented Modeling – Introducing the UML.

UNIT IV 13 Hrs

BASIC STRUCTURAL MODELING: Classes – Relationships – Common Mechanisms – Diagrams – Class Diagrams.

UNIT V 13 Hrs

BASIC BEHAVIORAL MODELING: Interactions – Use Cases – Use Case Diagrams – Interaction Diagrams – Activity Diagrams.

BOOKS FOR STUDY

1. Grady Booch, “Object – Oriented Analysis and Design with Applications“, Pearson Education, 9th Indian Reprint, 2002.

2. Grady Booch, James Rumbaugh, Ivar Jacobson “The Unified Modeling Language User Guide“, Pearson Education, New Delhi, 2004.

BOOKS FOR REFERENCE

1. Tom Pender, “UML 2 Bible“, Wiley Publishing Inc., USA.

2. Hans-Erik Erikkson and Magnus Penker, “ UML Toolkit “, Wiley Computer Publishing, New York.

3. Ali Bahrami, “Object Oriented Systems Development” Irwin – McGraw Hill, New Delhi.

Sem : I Hours/Week : 5
10PIT 1 1 03 Credits : 5

C AND DATA STRUCTURES

AIM

To develop programming skills using C language and to understand the principles of data structures.

UNIT I 13 Hrs

C FUNDAMENTALS: The C Character Set-Identifiers and Keywords-Data Type-Constants-Variables and Arrays-Declarations-Expressions-Statements. OPERATORS AND EXPRESSIONS: Arithmetic Operators-Unary Operators-Relational and Logical Operators-Assignment Operators-The Conditional Operator-Library Functions-Control Statements.

UNIT II 13 Hrs

ARRAY: Defining an Array-Processing an Array-Passing Arrays to Functions-Multidimensional Array-Arrays and Strings. FUNCTIONS: Defining a Function- Accessing a Function-Function Prototype-Passing Arguments to a Function- Recursion. STRUCTURE AND UNIONS: Defining a Structure-Processing a Structure-Structures and Pointers-Passing Structures to Functions-Unions.

UNIT III 13 Hrs

POINTERS: Pointer Declaration-Passing Pointer to Function-Dynamic Memory Allocation-Operations on Pointers-Passing Functions to Other Functions-File Handling.

UNIT IV 13 Hrs

DATA STRUCTURES: Primitive Data Structures-Arrays-Ordered Lists-Representation of Arrays-Stacks-Mazing Problem-Evaluation of Expressions-Queue-Circular Queue-Linked Lists-Trees-Binary tree.

UNIT V 13 Hrs

SORTING: Array Sorting-Tree Sort-Quick Sort. SEARCHING: Sequential and Binary Search-Hash Table Method.

BOOKS FOR STUDY

1. Byron S. Gottfried," Programming with C", 2nd Edition, Tata McGraw Hill, New Delhi, 2002. UNITS I, II, III
2. Ellis Horowitz and Sartaj Sahni, "Fundamentals of Data Structures", Galgotia, New Delhi, 2005 UNIT IV
3. Nicklaus Wirth, "Algorithms + Data Structures= Programs" PHI, New Delhi, 2002. UNIT V

BOOK FOR REFERENCE

Brian W. Kernighan, Dennis M. Ritchie, "The C Programming Language", PHI, New Delhi.

Sem : I Hours/Week : 2
10PIT 1 1 04 Credits : 2

NUMERICAL APTITUDE

AIM

To reuse and master the basic techniques of arithmetic operations so that this skills will augment to their professional capacity.

UNIT I

Numbers - HCF – LCM - Decimal Fractions – Simplification- Square Roots- Cube Roots –Averages - Problems in Numbers and Ages.

UNIT II

Surds - Indices- Percentages- Profit and Loss- Ratio and Proportion- Partnership- Chain Rule- Time and Work- Pipes and Distances.

UNIT III

Time and Distance- Problems on Trains- Boats and Streams- Allegation- Simple Interest-Compound Interest, Logarithms- Area.

UNIT IV

Volume and Surface Area - Races and Games of Skill – Calendar – Clocks - Stocks and Shares - Permutation and Combination- Probability.

UNIT V

True Discount - Bankers Discount - Height and Distances - Odd Man Out and Series – Tabulation - Bar Graphs- Pie Charts- Line Graphs.

BOOK FOR STUDY

R. S. Aggarwal, "Quantitative Aptitude for Competitive Examinations", Seventh Revised Edition, S. Chand and Co. Ltd, New Delhi, 2005.

Sem:I Hours/week:5
10PIT 1 1 05 Credit:5

LAB – C AND DATA STRUCTURES

C

1. Simple Programs & Control Structures.
2. Functions & Recursion.
3. Strings.
4. Structures & Union
5. Pointers.
6. File Operations.

DATA STRUCTURES

7. Stack Operation.
8. Queue Operation.
9. Singly Linked List.
10. Tree Traversal- Inorder, Preorder, Postorder
11. Sorting
12. Searching

Sem : I Hours/Week : 4
10PIT 1 1 06 Credits : 4

LAB - RDBMS & D2K

RDBMS

1. Basic Queries and Aggregate Functions.
2. Queries Using Set Operators.
3. Various Joins.
4. Nested Sub Queries and Correlated Sub Queries.
5. View Creation and Manipulation.
6. Preparation of Student Mark Sheet Using Cursor.
7. PL/SQL Program for Trigger and Exception.
8. PL/SQL Program Using Procedure, Functions and Packages.

D2K

9. EB Bill Form Creation.
10. Display Product Details using Menus, Alert & Validation.

Sem : I Hours/Week : 4
10PIT 1 2 01A Credits : 4

ELECTIVE I – OPERATING SYSTEM

AIM

To Provide the Basic concepts of Operating System and Rudiments of LINUX Operating System.

UNIT I 12 Hrs

INTRODUCTION: Meaning – Early Systems - Multiprogramming batch systems – Real-Time Systems. COMPUTER SYSTEM STRUCTURES: Computer-system operation - Storage Hierarchy - General System Architecture. OPERATING SYSTEM STRUCTURES: System components - System calls - Virtual machines - System generation.

UNIT II 12 Hrs

PROCESS MANAGEMENT: Processes - process concept - operation on processes - inter-process communication. CPU scheduling- basic concepts- scheduling algorithms - real time scheduling. Process Synchronization - background - critical-selection problem - semaphores - Deadlocks - System model - methods for handling deadlocks - deadlock avoidance - recovery from deadlock.

UNIT III 12 Hrs

STORAGE MANAGEMENT: Memory management: background - swapping - paging - segmentation with paging. VIRTUAL MEMORY: Demand paging - page replacement - allocation of frames - thrashing - demand segmentation.

UNIT IV 12 Hrs

FILE - SYSTEM INTERFACE: File concept - access methods - directory structures - consistency semantics. FILE SYSTEM IMPLEMENTATION: File-system structure - allocation methods -

directory implementation - efficiency and performance - recovery. SECONDARY-STORAGE STRUCTURE: Disk structure - disk scheduling - swap-space management. SECURITY: The security problem- authentication- threat monitoring - encryption.

UNIT V 12 Hrs

LINUX OPERATING SYSTEM: Main Characteristics –Linux distribution. The Linux file system: Basic Principles – Mounting – The Super block – file structure – file operation. MULTIPROCESSING: the Intel multiprocessor specification – Problem with multiprocessor system. KERNEL REALTED COMMANDS: free overview of the system memory – ps output of process statistics – top the CPU charts – init primus inter pares – shutdown –shutting down the system.

BOOKS FOR STUDY

1. Abraham Silberschatz and Peter Baer Galvin, “Operating System Concepts”, 4th Ed, Addison Wesley Longman Inc., New York, 1999.

   UNIT I, II, III & IV.

2. Michael Beck, ”Linux kernel programming”, 3rd Edition, Pearson Education Publisher, New Delhi -2002.

   UNIT V.

BOOKS FOR REFERENCE

1. Harvey M. Deitel, “An Introduction to Operating System”, Addison Wesley, New York, 1999.

2. Steve Shah ,” Linux Administration a Beginners guide “, 2nd Edition , Tata McGraw Hill, New Delhi, 2001.

Sem: I Hours/Week : 4
10PIT 1 2 01B Credits : 4

ELECTIVE I - MANAGEMENT INFORMATION SYSTEMS

AIM

To give an understanding about Information Systems, how it relates to managerial end-users business and to impart the knowledge on ERP Systems.

UNIT I 10 Hrs

INTRODUCTION TO INFORMATION SYSTEMS (IS): Why Study IS - Why Business Need Information Technology (IT) - Fundamentals of IS Concepts - Overview of IS - Solving Business Problems with IS - Developing IS Solutions.

UNIT II 12 Hrs

INFORMATION SYSTEMS FOR BUSINESS OPERATIONS: Business IS - Marketing, Manufacturing, Human Resource, Accounting and Financial Information Systems - Transaction Processing System - Management Information and Decision Support Systems. MANAGING INFORMATION TECHNOLOGY: Managing Information Resource and Technologies - Global IT Management - Planning and Implementing Business Change with IT.

UNIT III 12 Hrs

ENTERPRISE RESOURCE PLANNING (ERP): An Overview - Benefits of ERP - ERP and Related Technologies - Business Process Reengineering. ERP IMPLEMENTATION: ERP Implementation Life Cycle - Implementation Methodology - Hidden Cost - Organizing the Implementation - Vendors, Consultants and Users Contracts with Vendors, Consultants and Employees Project Management and Monitoring - ERP Present and Future - ERP and E-commerce - ERP and Internet.

UNIT IV 13 Hrs

FROM E-COMMERCE TO E-BUSINESS: Linking Today's Business with Tomorrow's Technology –E-business – Structural Transformation – E-business Requires Flexible Business Design Challenge Traditional Definition of Value – E-business Trend Spotting: Increase Speed of Service – Empower your Customer – Provide Integrated Solution, Not Piecemeal Products – Integrate your Sales and Service – Ease of Use – Provide Flexible Fulfillment and Convenient Service Delivery – Increase Process Visibility.

UNIT V 13 Hrs

E-BUSINESS DESIGN: Construction an E-business Design – Self Diagnosis – Reversing the Value Chain – Choosing a Narrow Focus – Constructing the E-business Architecture: The New Era of Cross – Functional integrated Apps – Aligning the e-business Design with Application Integration. CUSTOMER RELATIONSHIP MANAGEMENT: Defining CRM – The New CRM Architecture – Next-Generation CRM Trends.

BOOKS FOR STUDY

1. James A O'Brien, "Management Information Systems for Managing IT in the Internetworked Enterprise", 4th Ed., Tata McGraw Hill, New Delhi, 1999. UNITS I & II
2. Alexis Leon, "ERP Demystified", Tata McGraw Hill, New Delhi, 2000. UNIT III
3. Ravi Kalakota and Marcia Robinson, "e-Business Roadmap for Success", Addison-Wesley, New Delhi, 2000. UNITS IV & V

BOOK FOR REFERENCE

W.S. Jaswadekar, "Management Information Systems", Tata McGraw Hill, New Delhi, 1998.

Sem: II Hours/Week : 5
10PIT 2 1 07 Credits : 5

JAVA PROGRAMMING

AIM

To understand the fundamental concepts of the object oriented technology and the power of internet programming

UNIT I 12 Hrs

AN OVERVIEW OF JAVA: Object Oriented Programming- The OOP Principles –A First Simple Java Program – Java Keywords. INTRODUCING CLASSES: The General Form of a Class – A Simple Class – Declaring Objects – Introducing Methods – Constructors – this Keyword – The Finalize Method.

UNIT II 13 Hrs

CLASSES AND OBJECTS: Overloading Methods – Overloading Constructors – Returning Objects – Recursion – Introducing Access Control – Understanding Static –Introducing Nested and Inner Classes – Command Line Arguments. INHERITANCE: Inheritance Basics – Super – Dynamic Method Dispatch – Abstract Class – Final with Inheritance.

UNIT III 13 Hrs

PACKAGES AND INTERFACES: Packages – Access Protection – Importing Packages – Interfaces. EXCEPTION HANDLING: Exception Handling Fundamentals – Exception Types – Try And Catch – Multiple Catch Clauses – Throw – Throws – Finally – Built In Exceptions .

UNIT IV 13 Hrs

I/O BASICS: Reading Console Input – Writing Console Output – The Stream Classes – Byte Stream – I/O Stream – File Input Stream – File Output Stream. APPLET: An Applet Skeleton –Applet Display

Methods – Requesting Repainting –The HTML Tag – Passing Parameter to Applets. AWT: Event Classes – Event Listeners – Labels – Buttons – Checkboxes – Checkbox Group – Choice Control – Window Fundamentals – Layout Managers – Menu Bars And Menus

UNIT V 14 Hrs

MULTITHREADING: The Main Thread – Creating A Thread – Thread Priorities – Synchronization – Inter Thread Communication – Suspending, Resuming And Stopping Threads. NETWORKING: Networking Basics – TCP/IP Clients Sockets – TCP/IP Servers Sockets -Datagram's

BOOK FOR STUDY

Herbert Schildt, "The Complete Reference Java 2", McGraw- Hill, 5th Edition, New Delhi, 2002

BOOK FOR REFERENCE

C.MUTHU, "Programming with JAVA", Vijay Nicole Imprints, Chennai, 2004

Sem: II Hours/Week : 5
10PIT 2 1 08 Credits : 5

DISTRIBUTED TECHNOLOGIES

AIM

To Understand the Architecture of Distributed System, and Compare the Technologies Associated With J2EE and DOTNET.

UNIT I 13 Hrs

INTRODUCTION: J2EE Architecture – MVC Architecture – Structs Framework. PRESENTATION SERVICES: Servlet – JSP – Javamail – RMI – JMS.

UNIT II 13 Hrs

EJB: Session Beans - Stateless and Stateful – Entity Beans – CMP and BMP – Message Driven Beans.

UNIT III 13 Hrs

INTRODUCTION: What is ASP.NET? - Looping Program Structure – Basics of Programming – Programming Flow – Designing Application – Design the Structure for a Website Application. STRUCTURE OF WEBSITE APPLICATION: Processing ASP.NET Application – Programming ASP.NET With VB.NET – Built In ASP.NET Objects And Interactivity - Using The Request Object – The Response Object.

UNIT IV 13 Hrs

WEB FORMS AND ASP.NET: Web Form And Events – Web Form Event Handler – Build A Web Form Application. ASP.NET Configuration – ASP.NET and State – ASP Session – The Session Objects – Using the Session Objects – Using the Session Objects with ASP.NET. ASP.NET OBJECTS AND COMPONENTS: The Scripting Object Model– Active Server Components And Controls – Validation Controls – An Example Of Rotating Ads In ASP.

UNIT V 13 Hrs

ADO.NET: Interactivity And Latency – Using The Connection Object – Creating A Stored Procedure With Parameter – Using The Command Object – Grid View.

BOOKS FOR STUDY

1. Justin Couch, Daniel H. Steinberg," J2EE Bible",Wiley India(P) Ltd, New Delhi, 2002.

UNIT I

2. Paul Tremblett, "Instant Enterprise Java – Beans", Tata McGraw Hill Publishing Company, New Delhi, 2001.

UNIT II

3. Dave Mercer, "ASP.NET": A Beginner's Guide", Tata Mcgraw Hill Publishing Company Limited, New Delhi.

UNIT III, IV & V

BOOKS FOR RFERENCE

1. Jim Keogh "The Complete Reference J2EE", Tata McGraw Hill Edition, 2002.
2. Dino Esposito, "Introducing Microsoft ASP.NET 2.0", Prentice Hall of India Private Limited.
3. Rebecca M. Riorden, "Microsoft ADO.NET Step by Step", Prentice Hall of India Private Limited.

Sem : II Hours/Week : 5
10PIT 2 1 09 Credits : 5

COMPUTER COMMUNICATION NETWORKS

AIM

To offer the basic concepts of Computer Network & TCP/IP

UNIT I 13 Hrs

INTRODUCTION: Uses of Computer Networks—Network Hardware—Network Software—Reference Models. PHYSICAL LAYER: Transmission Media—Wireless Transmission—Communication Satellite — Public Switched Telephone Network—Mobile Telephone System—Cable Television.

UNIT II 13 Hrs

DATALINK LAYER: Design Issues—Error Detection & Correction—Elementary Data Link Protocols—Sliding Window Protocol – The Channel Allocation Problem—Multiple Access Protocols—Wireless LANs—Broadband Wireless –Bluetooth. NETWORK LAYER: Design Issues—Routing Algorithm—Congestion Control Algorithm—Quality of Service—Inter Networking-Network Layer in the Internet.

UNIT III 13 Hrs

TRANSPORT LAYER: The Transport Service—Elements of Transport Protocol—Internet Transport Protocol. APPLICATION LAYER: Domain Name System—Email—World Wide Web — Multimedia.

UNIT IV 13 Hrs

TCP/IP: Overview of TCP/IP—Internetworking—ARP—ICMP—User Datagram Protocol (UDP) — Reliable Stream Transport Service (TCP)—Routing Between Peers (BGP)—Internet Multicasting—Mobile IP.

UNIT V 13 Hrs

PRIVATE NETWORK INTERCONNECTION (NAT, VPN): Socket Interface—Bootstrap & Auto Configuration (DHCP) — Remote Login & Desktop (TELNET, SSH)—File Transfer & Access (FTP, TFTP, NFS) —Voice & Video Over IP—SNMP—Internet Security & Firewall Design.

BOOKS FOR STUDY

1. Andrew S.Tanenbaum,"COMPUTER NETWORKS", PHI, New Delhi, 2006.

   UNITS I, II & III

2. Douglas E.Comer, "INTERNETWORKING with TCP/IP", PHI, Fifth Edition, New Delhi, 2007.

   UNITS IV & V

BOOKS FOR REFERENCE

1. Behrouz A.Forouzan with Sophia Chung Fegan, "TCP/IP Protocol Suite", Third Edition, Tata McGraw-Hill, New Delhi, 2006.

2. Vijay Ahuja, "Design and Analysis of Computer Communication Networks", McGraw Hill, New York, 1985.

Sem : II Hours/Week : 2
10PIT 2 1 10 Credits : 2

INTER PERSONAL SOFT SKILLS

AIM

To impart various interpersonal skills which are needed for job hunting and working in the industry.

UNIT I

COMMUNICATION SKILL: Importance of Right Communication – Body Language – Facial Expressions – Eye Contact & Eye Movements – Tone of Voice – Languages - Etiquettes – Cross Cultural Communication – Exercises for Communication.

UNIT II

GROUP DISCUSSION & INTERVIEW TECHNIQUES: Components of Group Discussion – Points to Remember in Group Discussion – Personal Interview Techniques – Mock Interview – Stress Interview – Exercises for Group Discussion – Exercises for Interview.

UNIT III

LEADERSHIP SKILL: Definition of Good Leader – Different Kinds of Leaders – Personal Qualities of a Good Leader – Relationship Traits of a Good Leader – Leadership Strategies – Role of a Leader – Leading and Motivation – Managerial Skills for a Good Leader – Exercises for Leadership.

UNIT IV

TEAM BUILDING: Importance of Team Work – Intra and Inter Team Work – Team Building – Conflict Management – Negotiation – Persuasion – Assertive Skills – Dealing with Difficult Behaviors – Exercises for Team Building.

UNIT V

PROFESSIONAL EFFECTIVENESS: Importance of Professional Effectiveness – Self management – Creativity Management – Time Management – Stress Management – Priority Management – Presentation Management – Change Management – Exercises for Professional Effectiveness.

BOOK FOR REFERENCE

Mohan, Basic Mangerial Skills For All, 6th Edition, PHI, New Delhi.

Sem: II Hours/Week : 5
10PIT 2 1 11 Credits : 5

LAB – JAVA

1. Class, Object and Constructor
2. Inheritance
3. Polymorphism
4. Interface & Packages
5. Exception Handling
6. I/O Streams
7. Applet & AWT
8. JDBC Connectivity
9. Inter Thread Communication
10. Networking

Sem : II | Hours/Week : 4
10PIT 2112 | Credits : 4

LAB – DISTRIBUTED TECHNOLOGIES

J2EE

1. Servlets (Returning Information)
2. JSP (Get and Post Method)
3. JSP with JDBC
4. RMI
5. EJB: Session Bean
6. EJB: Entity Bean

ASP.NET

7. ASP.NET: Get and Post Method.
8. ASP.NET: Login Form (It Will Expire 3 Wrong Attempts).
9. Ad Rotator.
10. Cookies Manipulation.
11. ASP.NET and ADO.NET.
12. ASP.NET: Validation Controls

Sem: II Hours/Week : 4
10PIT 2 4 01A Credit : 4

IDC I - FUNDAMENTALS OF IT

AIM

To understand the basic concepts of computer and the role of information technology in the broader context of information system.

UNIT I 12 Hrs

COMPUTER BASICS:Evolution-Generations-Classifications and Applications of Computers. COMPUTER ARCHITECTURE: Central Processing Unit. COMPUTER MEMORY AND STORAGE: Memory Hierarchy-RAM-ROM-Magnetic Tape-Magnetic Disk and their types-I/O devices.

UNIT II 12 Hrs

OPERATING SYSTEM: Definition-Types and Functions. INFORMATION TECHNOLOGY BASICS: Information-Technology-Information Technology-Role of Information Technology-Careers in IT.

UNIT III 12 Hrs

MULTIMEDIA: Definition-Systems and applications. COMPUTER SOFTWARE: Definition- Installing and uninstalling software. MSOFFICE: Working with Documents- Text-Tables-Working with Excel Workbook-Formulas and functions—Inserting charts- Working with PowerPoint-Designs and Presentation.

UNIT IV 12 Hrs

DATA COMMUNIACTION AND COMPUTER NETWORK: Data Communication-Transmission Media-Types of Network-Network topologies-Network Devices. THE INTERNET: Evolution of Internet-Getting Connected to Internet - Web Browser -Search Engines. COMPUTER SECURITY: Definition-Malicious Programs-Firewall.

UNIT V 12 Hrs

DATABASE: Definition- Types of Databases. EMERGING TRENDS IN IT: E-Commerce- EDI- Mobile Communication- Bluetooth- GPS-Infrared Communication-Smart Card.

BOOK FOR STUDY

"Introduction to Information Technology", Itl Education Solutions Limited 2006.

Sem : II Hours/week : 4
10PIT 2 4 01B Credit : 4

IDC I – WEB DESIGN

AIM

To understand the complete concepts of HTML and JAVA SCRIPT.

UNIT I 12 Hrs

INTRODUCTION TO HTML: Designing a Home Page - HTML Documents – Anchor Tag – Hyper links – Simple HTML Documents. HEAD AND BODY SECTION: Title – Colorful WebPages – Some Sample HTML Documents - Aligning the Heading – Images and Pictures - Unordered List – Ordered List.

UNIT II 12 Hrs

TABLES: Table Creation in HTML – Cells Spanning Multiple Rows/Columns – Some Sample Tables. DHTML AND STYLE SHEETS: Inline Styles – External Styles Sheets – Multiple Styles. FRAMES: Frame Definition – Nested Framesets.

UNIT III 12 Hrs

JAVASCRIPT: Objects – Methods – Events and Program Flow – Running Script Using Names. OBJECT AND METHODS: Built in Objects – Operators and Variables – Keywords – Functions – Object Interaction.

UNIT IV 12 Hrs

INTERACTIVE WEBPAGES: Using Conditional Statements for Decision Making – If Statements – If-Else Conditional Statements – While Conditional Statements – Break and Continue Statements – Creating Functions in Java Script – Declaring a Function – Designing a Simple Function.

UNIT V 12 Hrs

DYNAMIC WEB PAGES: Changing Pages Based on Time and Date – Using Arrays – Changing the Background Color through Random Numbers – Turning the Color Generator into a Function – Creating an Image Object – Creating an Area Object – Basic Scripts Construction – Field Level Validation.

BOOKS FOR STUDY

1. C. Xavier, "World Wide Web Design with HTML", Tata McGraw Hill Ltd, New Delhi.

   UNIT I & II

2. Lee Purcell, Mary Jane Mara, "The ABC's of Java Script", BPB Publications, New Delhi.

   UNIT III, IV & V

Sem : III Hours/Week : 5
10PIT 3 1 13 Credits : 5

SOFTWARE ENGINEERING

AIM

To provide the basic concepts of software engineering and various phases in software development life cycle.

UNIT I 10 Hrs

SOFTWARE PROCESS: Software Engineering - A Layered Technology – Process Framework – Capability Maturity Model & Integration (CMMI). PROCESS MODELS: Waterfall Model- Incremental Process Model – Evolutionary Process Model – Specialized Process Model. SYTEM ENGINEERING: System Engineering Hierarchy – System Modeling.

UNIT II 13 Hrs

REQUIREMENTS ENGINEERING: Requirements Engineering Tasks- Initiating Requirements Engineering process-Eliciting Requirements-Developing Use Cases –Negotiating Requirements. BUILDING THE ANALYSIS MODEL: Data Modeling Concepts- Scenario Based Modeling- Flow oriented Modeling – Class Based Modeling

UNIT III 14 Hrs

DESIGN ENGINEERING: Design Concepts – Design Model. ARCHITECTURAL DESIGN: Software Architecture – Architectural Styles & Patterns – Mapping Data Flow into Software Architecture. COMPONENT LEVEL DESIGN: Component Definition – Designing Class Based Components. UI DESIGN: The Golden Rules – UI Analysis & Design – Interface Design Steps.

UNIT IV 14 Hrs

TESTING STRATEGIES: Strategic Approach for Software Testing –

Test Strategies for Conventional & Object Oriented Software – Validation Testing – System Testing – The Art of Debugging. TESTING TACTICS: Software Testing Fundamentals – White Box Testing – Basis Path Testing – Control Structure Testing- Black Box Testing.

UNIT V 14 Hrs

METRICS FOR PROCESS & PROJECTS: Metrics in the Process & Projects Domains- Software Measurement. RISK MANAGEMENT: Software Risks – Risk Identification. QUALITY MANGAMENT: Quality Concepts – Software Quality Assurance- Formal Technical Reviews – CHANGE MANAGEMENT: Software Configuration Management – SCM Process.

BOOK FOR STUDY

Roger S. Pressman, "Software Engineering-A Practitioners Approach", McGraw Hill International, 6th Edition, New York, 2005.

BOOK FOR REFERENCE

Richard Fairley, "Software Engineering Concepts", McGraw Hill International.

Sem : III Hours/Week : 5
10PIT 3 1 14 Credits : 5

DATA WAREHOUSING & DATA MINING

AIM

To provide an understanding of the Data Warehousing and Data Mining concepts.

UNIT I 12 Hrs

DATA MINING AND DATA PREPROCESSING: Data Mining – Motivation – Definition – Data Mining on Kind of Data – Functionalities – Classification – Data Mining Task Primitives – Major Issues in Data Mining – Data Preprocessing – Definition – Data Clearing – Integration and Transformation – Data Reduction.

UNIT II 13 Hrs

DATA WAREHOUSING: Introduction – Multidimensional Data Model – Data Warehouse Architecture – Data Warehouse Implementation – From data Warehousing to Data Mining – On Line Analytical Processing - On Line Analytical Mining.

UNIT III 13 Hrs

FREQUENT PATTERNS, ASSOCIATIONS AND CLASSIFICATION: The Apriori Algorithm – Definition of Classification and Prediction – Classification by Decision Tree Induction - Bayesian Classification – Rule Based Classification – Classification by Back Propagation – Lazy Learners – K-Nearest Neighbor – Other Classification Methods.

UNIT IV 13 Hrs

CLUSTER ANALYSIS: Definition – Types of data in Cluster Analysis – Categorization of major Clustering Techniques – Partitioning Methods – Hierarchical Clustering – BIRCH - ROCK – Grid Based Methods – Model Based Clustering Methods – Outlier Analysis.

UNIT V 14 Hrs

SPATIAL, MULTIMEDIA, TEXT AND WEB DATA: Spatial Data Mining – Multimedia Data Mining – Text Mining – Mining the World Wide Web – Data Mining Applications – Trends in Data Mining.

BOOK FOR STUDY

Jiawei Han and Micheline Kamber, "Data Mining Concepts and Techniques ", 2nd Ed., Morgan Kaufmann Publishers, 2006.

BOOKS FOR REFERENCE

1. Margret H.Dunham, "Data Mining: Introductory and Advanced Topics", Pearson Education, 2003.
2. Arun K.Pujari, "Data Mining Techniques", University Press, 2001.

Sem : III Hours/Week : 5
10PIT 3 1 15 Credits : 5

XML AND WEB SERVICES

AIM

To understand the basics of XML documents and study the various concepts of Web Services.

UNIT I 13 Hrs

INTRODUCTION: XML – To Resolve Issues in Electronic Information Exchange- XML Definition – DTD – XML Namespace – XML Schema.

UNIT II 13 Hrs

XML TRANSFORMATION: XPATH – XSL – XML Parsers – DOM Parsers.

UNIT III 13 Hrs

XML –RPC SPECIFICATION: Implement XML-RPC in a New Infrastructure -A Simple XML-RPC Example. SOAP: SOAP Versus XML-RPC - A SOAP Message.

UNIT IV 13 Hrs

INTRODUCTION TO WEB SERVICE- Interface Versus Implementation- Web Service Description Language (WSDL) –Using WSDL on the Server-Using WSDL on the Client- Using WSDL Programmatically.

UNIT V 13 Hrs

SERVICE DISCOVERY: Directory Services –Universal Description, Discovery and Integration (UDDI) - Publishing to a UDDI Registry- Querying a UDDI Registry.

BOOKS FOR STUDY

1. IBM, “XML: Related Technologies and Programming in Java”, PHI, New Delhi, 2004.

   UNIT: I & II

2. Mike Jasnowski, ”Java, XML & Web Service Bible”, IDG Books India(P)Ltd.2002.

   UNIT: III,IV & V

BOOKS FOR REFERENCE

1. Elliote Rusty Harold, ”XML Bible”, IDG Books India, New Delhi, 2004.
2. Gold Forb, ”XML Hand Book”, Pearson Education, New Delhi, 2003.

Sem : III Hours/Week : 4
10PIT 3 2 02A Credits : 4

ELECTIVE II - SOFTWARE TESTING

AIM

To introduce the basic concepts of software testing that helps in our carrier.

UNIT I 12 Hrs

PRINCIPLES OF TESTING: Context of Testing in Producing Software - Test in Time - Test the Tests First - Phases of Software Project – Quality - Quality Assurance and Quality Control - Testing Verification and Validation - Software Test Life Cycle Models. TECHNIQUES: White Box and Black Box Testing.

UNIT II 12 Hrs

TYPES OF TESTING: Integration Testing -System Acceptance Testing - Performance Testing - Regression Testing - Ad hoc Testing -Usability and Accessibility Testing.

UNIT III 12 Hrs

TEST METRICS AND MEASUREMENTS: Metrics and Measurements- Metrics in Testing, Types of Metrics – Progress Metrics-Productivity Metrics-Test Planning – Management – Execution and Reporting.

UNIT IV 12 Hrs

TESTING OF OBJECT-ORIENTED SYSTEM: Introduction-Primer on Object-Oriented Software-Differences in OO Testing. ORGANIZATION STRUCTURE FOR TESTING TEAMS: Dimensions of Organization Structures - Structure in Single Product Companies - Structure for Multi Product Companies.

UNIT V 12 Hrs

SOFTWARE TEST AUTOMATION: Test Automation - Terms Used in Automation – Skills Needed for Automation - Scope of Automation -Design and Architecture for Automation- Generic Requirement for Test Tool/ Framework -Selecting a Testing Tool- Automation for Extreme Programming Model.

BOOK FOR STUDY

Srinivasan Desikan and Gopalasamy Ramesh, “Software Testing for Principles and Practices”, Person Education, South Asia, 2007.

BOOK FOR REFERENCE

Marine L.Hutcheson, “Software Testing Fundamentals”, Wiley Dreamtech, New Delhi, 2003.

Sem : III Hours/Week : 4
10PIT 3 2 02B Credits : 4

ELECTIVE II: PROJECT MANAGEMENT

AIM

To understand the basic principles of Project Management.

UNIT I 12 Hrs

Introduction to Software Project Management- Software Project versus Other Types of Project –Problems – Management Control – Stake Holders – Requirement Specification- Introduction to Stepwise Project Planning-Identify Scope and Objectives – Identify Project Infrastructure- Analyze Project Characteristics-Products and Activities- Estimate Effort for Each Activity-Identify Activity Risks-Allocate Resources-Review Plan – Execute Plan - Project Evaluation- Strategic Assessment-Technical Assessment – Cost Benefit Analysis- Cash Flow Forecasting – Cost –Benefit Evaluation Techniques.

UNIT II 12 Hrs

Selection of an Appropriate Project Approach –-Choice of Process Models-Structured Methods- Rapid Application Development – Waterfall Model-V- Model-Spiral Model-Software Prototyping- Incremental Delivery-Selecting Process Model-Software Effort Estimation- Problems with Over and Under Estimates-Basis for Software Estimation-Software Effort Estimation Technique - Function Point Analysis- Object Points-COCOMO-Activity Planning-Project Schedules – Sequencing and Scheduling Activities-Network Planning Models- Formulating a Network-Identifying Critical Path-Shortening Project Duration.

UNIT III 12 Hrs

Risk Management-Nature of Resources-Requirements-Scheduling-Critical Paths-Counting the Cost-Resource Schedule-

Cost Schedule-Scheduling Sequence-Monitoring and Control-Creating the Framework-Collecting the Data-Visualizing the Progress-Cost Monitoring- Prioritizing Monitoring-Change Control.

UNIT IV 12 Hrs

Managing Contracts-Types of Contract-Stages in Contract Placement-Terms of Contract- Contract Management-Acceptance-Managing People and Organizing Teams-Organizational Behavior Background-Selecting the Right Person for the Job-Instruction in the Best Methods- Motivation-Decision Making-Leadership-Organizational Structures-Software Quality- Importance-Defining ISO 9126-Practical Measures-Product versus Process Quality Management.

UNIT V 12 Hrs

Small Projects – Some Problems- Content of a Project Plan-PRINCE2-An Overview-BS6079: 1996 an Overview-Euro Method-An Overview.

BOOKS FOR STUDY

1. Bob Huges and Mike Cortell, “Software Project Management”, Tata McGraw Hill, 2nd Edition, 2002.
2. Walker Royce, “Software Project Management”, Addison Wesley Publications, 1998.

Sem : III Hours/Week : 4
10PIT 3 2 03A Credits : 4

ELECTIVE III - MULTIMEDIA

AIM

To understand the complete concepts of Multimedia, Flash, Dreamweaver and Corel draw.

UNIT I 12 Hrs

INTRODUCTION TO MULTIMEDIA: Definition – Hardware Peripherals – Memory and Storage Devices – I/O Devices – Communication Devices – The Multimedia Team – Text – About Font and Faces – Computers and Text Font Editing and Design Tools – Digital Audio Representation and Processing – Transmission of Digital Sound – Images – Making Still Images – Video – Recording Format – Video Tips – Video Compression.

UNIT II 12 Hrs

MULTIMEDIA DEVELOPMENT PROCESS: Multimedia Project – Structured Multimedia Development - Costing Multimedia Project. MULTIMEDIA DEVELOPMENT TOOLS :Multimedia Authoring Tools – Icon Based Tools – Time Based Authoring Tools – Object Oriented Tools.

UNIT III 12 Hrs

FLASH: Introduction – Menus – Panels - Tools – Frames – Layers – Symbols – Animation.

UNIT IV 12 Hrs

DREAM WEAVER: Introduction – Creating a web page – Creating a Web Site - Use Tables to Position Elements on the Page.

UNIT V 12 Hrs

COREL DRAW: Introduction – Drawing Shapes – CorelDraw and Fills – Using Text in Drawing – Special Effects.

BOOKS FOR STUDY

1. Tay Vaughan, ”Multimedia Making it Work”, 4th ED., TMH, New Delhi, 2001.

UNIT I.

2. John F.Koegel Buford, ”Multimedia Systems”, 3rd ED., Addition Wesley, New Delhi, 2000.

UNIT II

3. K K Thyaharajan, B Anbumani, ”FLASH MX 2004”,Tata McGraw-Hill Publishing Company Limited, New Delhi.

UNIT III

4. Ray West and Tom Muck, “Dreamweaver MX: A Beginner’s Guide” , Tata McGraw-Hill Limited, New Delhi.

UNIT IV

5. Visnu Priya Singh & Meenakshi Singh, “DTP Course”, 8th Revised Edition, Computech Publications Ltd., New Delhi.

UNIT V

Sem : III Hours/Week : 4
10PIT 3 2 03B Credits : 4

ELECTIVE III – CYBER SECURITY

AIM

To provide an overview on various techniques in cyber security.

UNIT I 12 Hrs

Overview – Symmetric Ciphers: Classical Encryption Techniques

UNIT II 12 Hrs

SYMMETRIC CIPHERS: Block ciphers and the Data Encryption Standards Public-key Encryption and Hash Functions: Public-Key Cryptography and RSA

UNIT III 12 Hrs

NETWORK SECURITY PRACTICES: Authentication applications – Electronic Mail Security

UNIT IV 12 Hrs

Network Security Practices : IP Security – Web Security

UNIT V 12 Hrs

SYSTEM SECURITY: Intruders – Malicious Software – Firewalls

BOOK FOR STUDY

William Stallings, "Cryptography and Network Security – Principles and Practices", Prentice-Hall, 3rd Edition, 2003

BOOKS FOR REFERENCES

1. Johannes A. Buchanan , "Introduction to Cryptography", Springer-Verlag.
2. Atul Kahate , "Cryptography and Network Security", TMH

Sem : III Hours/Week : 4
10PIT 3 4 02A Credits : 4

IDC II - FLASH

AIM

To Understand the Basic Concepts of Flash and hands on experience of Flash Tools.

UNIT I 12 Hrs

INTRODUCTION TO FLASH MX ENVIRONMENT: Toolbar-Toolbox-Timeline- Panels-Property Inspector. MENUS: File Menu – Edit Menu-Preference Dialog Box-View Menu-Insert Menu –Modify Menu-Text Menu-Commands Menu-Control Menu-Window Menu-Flash Default File Types.

UNIT II 12 Hrs

PANELS: Design Panels – Development Panels – Project Panels – Properties Panel. GRAPHIC TOOLS IN FLASH: Drawing Tools – Object Selection Tools - Color Selection Tool – Viewing Tools.

UNIT III 12 Hrs

ADVANCED EDITING TECHNIQUES: Reshaping the Object – Optimizing the Curves – Expand and Insert the Fills – Softening the Edges – Converting the Lines to Fills.

UNIT IV 12 Hrs

TRANSFORMATIONS: Arranging the Elements – Aligning Objects. FRAMES, LAYERS AND SCENES: Frames – Layers-Scenes- Document Properties.

UNIT V 12 Hrs

SYMBOLS: Methods of Creating Symbols – Editing the Symbols-Animated Symbols - ANIMATION: Frame –By-Frame Animation –

Motion Tweening – Shape Tweening – Hybrid Tweening – Text Animation – Timeline Effects.

BOOK FOR STUDY

K K Thyagharajan, B Anbumani, " FLASH MX 2004 " , Tata McGraw-Hill Publishing Company Limited, New Delhi.

BOOK FOR REFERENCE

Robert Reinhardt, Snow Dowd, "Macromedia Flash MX 2004 Bible", Wiley Publishing Inc, Indianapolis, Indiana.

Sem: III Hours/Week : 4
10PIT 3 4 02B Credit : 4

IDC-II — DREAMWEAVER

AIM

To understand the various design concepts of Dreamweaver and creating web applications in effective manner.

UNIT I 12 Hrs

INTRODUCTION TO HTML: History of HTML – Head and Body Sections-Ordered and Unordered Lists – Table Handling – Frames – Forms.

UNIT II 12 Hrs

INTRODUCTION TO DREAMWEAVER MX: Understand the Internet, WWW and Data Driven Web Application Components –The Dreamweaver MX Environment – Learn to Work with Dreamweaver MX- Use the Site Panel –Work in the Document Window- Learn Dreamweaver's Menu System – Learn about Dreamweaver MX Objects, Behaviors.

UNIT III 12 Hrs

CREATING A WEB PAGE: Open, Edit and Save a Web Page in Dreamweaver MX – Naming Your Page – Editing the Page – Add Text to a Page and Format It – Understand the Types of Images Available to the Web Page – Format and Align Images on the Page - Use Tables to Position Elements on the Page.

UNIT IV 12 Hrs

CREATING A WEB SITE: Define a New Web Site in Dreamweaver MX – Manage and Add Pages to Your Site – Add New Pages to Your Site – Adding New Directories to Your Site – Publish Your Site to the Internet. ADDING CONTENT TO YOUR SITE: Build a Home Page

in Dreamweaver – Create Templates in Dreamweaver - Use Templates to Add Pages to Your Site.

UNIT V 12 Hrs

PLANNING THE SITE: Plan and Design Your Site-Establish the Purpose of the Site –Make Basic Site Construction Decisions – Add Pages to the Site with the Site Map – Understand Basic Design Concepts – Use Collaborative Development.

BOOKS FOR STUDY

1. C Xavier, “World Wide Web Design with HTML”, Tata McGraw-Hill, New Delhi.

   UNIT I

2. Ray West and Tom Muck, “Dreamweaver MX: A Beginner’s Guide”, Tata McGraw-Hill Limited, New Delhi.

   UNIT II, III, IV & V

BOOK FOR REFERENCE

Joseph W. Lowery, “Dreamweaver MX 2004 Bible”, Wiley Publishing Inc, Indianapolis, Indiana.

INTER DEPARTMENTAL COURSE - IDC

BIOCHEMISTRY

10PBC2401 APPLIED NUTRITION

10PBC3402 FIRST AID MANAGEMENT

BIOTECHNOLOGY

10PBT2401 BASIC BIOINFORMATICS

10PBT3402 BASIC GENOMICS & PROTEOMICS

CHEMISTRY

10PCH2401 HEALTH CHEMISTRY

10PCH3402 INDUSTRIAL CHEMISTRY

COMMERCE

10PCO2401 FINANCIAL ACCOUNTING FOR MANAGERS

10PCO3402 MANAGEMENT CONCEPTS & ORGANIZATIONAL BEHAVIOR

COMPUTER APPLICATIONS

10PCA2401 INTERNET CONCEPTS

10PCA2402 FOUNDATION OF COMPUTER SCIENCE

10PCA3403 COMPUTER APPLICATIONS FOR SOCIAL SCIENCES

10PCA3404 FUNDAMENTALS OF PROGRAMMING

COMPUTER SCIENCE

10PCS2401A FUNDAMENTALS OF IT

10PCS2401B WEB DESIGN

10PCS3402A FLASH

10PCS3402B DREAM WEAVER

ECONOMICS

10PEC2401 ECONOMICS FOR MANAGERS

10PEC3402 INDIAN ECONOMY

ELECTRONICS

10PEL2401 ELECTRONICS IN COMMUNICATION

10PEL3402 COMPUTER HARDWARE

ENGLISH

10PEN2401	BUSINESS ENGLISH
10PEN3402	INTERVEIW SKILLS AND GROUP DYNAMICS

HISTORY

10PHS2401	PUBLIC ADMINISTRATION
10PHS3402	APPLIED TOURISM

HUMAN RESOURCE MANAGEMENT

10PHR2401	FUNDAMENTALS OF HRM
10PHR3402	PERSONALITY AND SOFT SKILLS DEVELOPMENT

INFORMATION TECHNOLOGY

10PIT2401A	FUNDAMENTALS OF IT
10PIT2401B	WEB DESIGN
10PIT3402A	FLASH
10PIT3402B	DREAM WEAVER

MATHEMATICS

10PMA2401	OPERATIONS RESEARCH
10PMA3402	NUMERICAL METHODS

PHYSICS

10PPH2401	MODERN PHOTOGRAPHY
10PPH3402	MEDICAL PHYSICS

PLANT BIOLOGY & PLANT BIOTECHNOLOGY

10PPB2401	NANOBIOTECHNOLOGY
10PPB3402	REMOTE SENSIND AND GIS

TAMIL

10PTA2401	muRg gzpj NjuTj jkpo - 1
10PTA3402	muRg gzpj NjuTj jkpo - 2