3rd YEAR

PAPER-1

SECTION -A : JAVA PROGRAMMING

Unit - I :

- C++ Vs Java, Java and Internet and WWW, Java support systems, Java environment, Java Program Structure, Tokens, Statements, Java Virtual machine, Expressions & its Evaluation, Data Types; Type Casting, Operators : Expressions & its Evaluation, Decision making and branching, Loops, Jumps in Loops, Labeled Loops.

Unit - II :

- Defining a class, Adding variables and method, Creating obj.ects, Assessing class members, Constructors, Method overloading, Static members, Nesting of methods, Inheritance : Extending a class, Overriding methods, Final variables and methods, Final classes, Finalizer methods, Abstract method sand classes,Visibility control.

Unit - III :

- Arrays, One dimensional & two dimensional Strings, Vectors, Wrapper classes, Defining interfaces, Extending interfaces, Implementing interfaces, Accessing interface Variables, System packages, Using System packages, Naming Conventions, -Creating packages, Accessing a packages, Using package, Adding a class to a package, Hiding classes.

Unit - IV :

- Threads, Creating threads, Extending the threads class, Stopping and blocking a thread, Life cycle of a thread, Using thread methods, Thread exceptions, Thread priority, Synchrozation, Implementing the runnable interface.

Unit - V :

- Applets, Local and remote applets, Appletsvs applications, Writing applets, Applets life cycle, Creating an executable applet, Designing a web page, Applettage, Adding applet to HTML file, Running the applet, Passing parameters to applets, Aligning the display, HTML tags & applets, Getting input from the user.

PAPER - I

SECTION - B : Internet and Web Designing

Unit - I :

- **Introduction to Internet Applications** :- Introduction to internet, WWW, News group. E-mail Messaging Protocols,Internet Protocols (HTTP, FTP, TFTP, DNS, SMTP, IMAP, POP and TCP/IP), Setting up Internet connection using Dial-up and leased-Nne (Broadband). Creating E-mail Sending mails. Attachments, using FTP Services.

Unit - II :

- **Web Page Designing** :- Using different browsers. (Internet Explorer/Netscape Navigator) Browsing internet and E-mail service providers, Features of internet Services (Chatting, Conferencing), MIRC, HTML & DHTML: HTML Tags, Designing Tables, Frames, and Forms, Placing images, animation and Sound on Sites,Using Hit Counter. Adding VB Script code to html pages, Scripting Functions. Using Front Page 2002 Hosting your website using The Free hosting Sites like yahoo, Angel fire, etc.

Unit - III :

- Server side programming using ASP :- Asp objects, DOM, Database accessing on web, Using Forms for perform Query in Databases.

SECTION - C : INTRODUCTION TO NETWORK SECURITY

Unit - I :

- **Introduction** :- Networking Terminologies, Active vs passive Attacks, Viruses, Worms, Trojan Lorser. The Multi Level Model of Security, Legal issues. Introduction, Breaking an Encryption Scheme, Types of Cryptographic Functions-Secred Key, Public Key and Hash Algorithms. Data Encryption Standards, International Data. Encryption algorithm, Advanced Encryption Standard, RC4 Modes of Operation, encrypting a large message, Generating MACs, Multiple Encryption DES. Public Key Algorithm, Modular Arithmetic, RSA, Diffie-Hellman, Digital Signature Standard.

Unit - II :

- **Authentication** : Password based, Address based, Cryptographic authentication protocols, Eavesdropping and Server Database reading, Trusted Intermediaries, Session Key, Authentication of People Security Handshake pitfalls. Electronic Mail Security, PGP (Pretty Good Privacy). Firewalls, Web Issues.

PAPER-II

SECTION - A : VISUAL PROGRAMMING WITH VISUAL BASIC

Unit - I :

- **Visual programming** :- The Fundamental of visual Basic, Introduction, VB Editions, Working with visual Basic, IDE, The elements of the user-Interface, Designing the user Interface, Programming an application, Visual Development and Event-Driven Programming, Customizing the environment.
- **Visual Basic the Language** :- Visual basic projects, the project files, variables, constants, Arrays, collections, procedures, agruments, function returns values, control flow statements, looping statements, nested control structures, exit statement.
- **Working with forms** :- The appearance of the form, designing menus, building dynamic forms, drag and drop operations, mouse conflicts.

- **Basic Active X Controls** :- The textbox control, the list box and combo box controls, the scroll bar and slider controls, the file controls.
- **Advanced Active X controls** :- The Common dialogs control, using the common dialog control the tree view and List view controls, the rich text box control, the RTF language, the msflexgrid control.
- **Multiple Document Interface** :- MDI applications, parent and child MDI forms,Accesing child forms, Implementing scrolling forms.
- **Database Programming with VB** :- The Active date objects, data environment, sql, mshflexgrid control, ado, Dao, Library, Report designing using data report, Interfacing with MS-Access & Oracle database.

SECTION - B : SQL SERVER

Unit - I :

- **Introduction** :- SQL Server 2000 Relational Database Management System and conventional database systems. Installing SQL Server. Working with Enterprise Manager. Con figuring a Database, Creating Tables, Views, Defining constraints, Creating relationships. Designing Database diagram. Creating Indexes. Creating user-defined data types, Creating Stored Procedures and Function.
- Working with Query Analyzer, Writing queries, Using relational operators like project, join, Intersect, union, difference. Built-in SQL functions. Performing data manipulation from query analyzer. Query optimization.
- Using OLE DB, ADO for interfacing with front-end applications designs in VB, Java etc.

SECTION - C : SYSTEM ANALYSIS & DESIGN

Unit - I :

- **SYSTEM CONCEPTS** :- The system concept, Characteristics of system, Elements of system, Types of system, man made information systems.
- **SYSTEM DEVELOPMENT LIFE CYCLE** : - Recognition of need, Feasibility study, Analysis, Design implementation, post implementation and maintenance system planning and control.
- **SYSTEM PIANNING AND INITIAL INVESTIGATION** :- Bases for planning system analysis, Determing users requirements and analysis, Fact finding, Determination of feasibility.
- **TOOLS OF STRUCTURED ANALYSIS** :- Logical and Physical Models, Data flow diagram, Data dictionary, System structured charts, System model, Pseudo codes, Decision tree, Decision tables,HIPO chart,Gantt charts,Warries diagram.
- **FEASIBILITY STUDY** :- System performance constraints, identification of system objective, feasibility analysis and report.
- **SYSTEM DESIGN** :- Stages of system design, Logical and physical design methods, From driven mythologies, IPO and HIPO charts, structured walk through, Audit considerations: Processing controls, Data validation, Audit trail and documentation control.