B. COM - I (COMPUTER APPLICATION)
PAPER - I
COMPUTER FUNDAMENTALS
MAX MARKS : 50

Note :- The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice.

UNIT-I INTRODUCTION TO COMPUTERS

Computer System: Characteristics and capabilities. Computer Hardware and Software: Block Diagram of Computer, Different Data Processing: Data, Data Processing System, Storing Data, Processing Data. Types of Computers: Analog, Digital, Hybrid General and Special Purpose Computers. Generation of Computers. Computer Systems: Micro, Minis & Main-Frames. Limitations of Micro Computer. **Number systems:** Decimal number system. Binary number system. Octal and Hexadecimal number system. 1's and 2's complement. **Codes:** ASCII, EBCDI codes, Gray code and BCD. **Logic Gates**: AND, OR, NOT GATES and their Truth tables, NOR NAND and XOR gates.

UNIT-II COMPUTER PERIPHERALS

Introduction to Input Devices: Categorizing Input Hardware, Keyboard, Direct Entry- Card Readers Scanning Devices - O.M.R. Character Readers, Thumb Scanner, MICR Smart Cards, Voice Input Devices Pointing Devices - Mouse Light Pen, Touch Screen. **Computer Output :** Output Fundamentals, Hardcopy Output Devices, Impact Printers, Non-Impact Printers, Plotters, Computer output Microfilm/Microfiche (COM) System, Softcopy Output Devices, Cathode Ray Tube, Flat Screen Technologies, Projectors, Speakers.

UNIT-III BASIC COMPONENTS AND STORAGE

Central Processing Unit : The Microprocessor, control unit, A.L.U., Registers, Buses, Main Memory, Main Memory(RAM) for microcomputers, Read Only Memory(ROM). Storage Devices: Storage Fundamentals, Primary and Secondary Storage, Data Storage and Retrieval Methods – Sequential, Direct & Indexed Sequential, Tape Storage and Retrieval Methods Tape storage Devices, characteristics and limitations, Direct access Storage and Microcomputers - Hard Disks, Disk Cartridges, Direct Access Storage Devices for large Computer systems, Mass storage systems and Optical Disks, CD ROM.

UNIT-IV COMPUTER SOFTWARE AND LANGUAGES

System Software: System software Vs. Application Software, Types of System Software, Introduction and Types of Operating Systems, Boot Loader, Diagnostic programs, BIOS, Utility Programs, **Application Software** : Microcomputer Software, Interacting with the System, Trends in PC software, Types of Application Software, Difference between Program and Packages. **Computer Language:** Definition, Generations of Computer languages, Types of Languages, **Language Processors:** Assembler, Interpreter, Compiler, Linker
and Loader, Programming constructs, Algorithm and flowchart.

UNIT-V INTRODUCTION TO MS-DOS AND WINDOWS

Introduction to DOS: History and Versions of DOS Fundamentals of DOS: Physical Structure of the Disk, Compatibility of drives, Disks & DOS versions, Preparing Disks for use, Device Names. Getting Started with DOS: Booting Process (DOS, Windows ,UNIX), System Files and Command.com, Internal DOS files & Directories, Elementary External DOS Commands, Creating a Batch Files, Additional Commands. **Microsoft**
Windows: Operating system, Definition and functions, basics of Windows. Basic components of windows, icons, types of icons, taskbar, activating windows, using desktop, title bar, running applications, exploring computer, managing files and folders, copying and moving files and folders. Control panel-display properties, adding and removing software and hardware setting sate and time, screen saver and appearance. Using windows accessories.

B. COM - I (COMPUTER APPLICATION)
PAPER - II
PC S/W & MM
MAX MARKS: 50

Note :- The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice.

UNIT-I USING OFFICE MS-WORD

Introduction to word processing software and if's features, Creating new document, Saving documents, Opening and printing documents. **Home Tab: Setting** fonts, Paragraph settings, various styles (Normal, No spacing, Heading1, Heading2, Title Strong), Find & replace, Format Printer, Copy paste and pasts special. **Insert Tab: Pages**, Tables, pictures, clipart, shapes, header & footer, word art, equation and symbols. **Page Layout Tab: Page** setup, page Background, Paragraph (indent and spacing). **Mailing Tab:** Create envelops and Labels, Mail merge. **Review Tab: Spelling** and grammar check, new comment, Protect document**. View Tab: Document** views, zoom, Window (New window, Split, Switch window).

UNIT-II WORKING WITH MS-EXCEL

Introducing Excel, Use of Excel sheet, Creating new sheet, Saving, Opening & Printing workbook. **Home Tab: Font**, Alignment, Number, Styles and cells and editing, Conditional Formatting. **Insert Tab: Table**, Charts (Column Chart, Pie chart, Bar chart, Line chart) and Texts (heading & Footer, word art, signature line). **Page Layout Tab:** Page setup options, Scale to fit (width, height, scale) **Formulas Tab :** Autosum (sum, average, min, max). Logical (IF, and, or, not, true, false), Math & trig (sin, cos, tan, ceiling, floor, fact, mod, log), watch window. **Data Tab: Get** external data from MS Access, Sort and filter options, Data validation, Group and ungroup. **Review Tab: Protect** sheet, Protect workbook and Share workbook. **View Tab: Page** break, Page layout, Freezing panes, Split and hide.

UNIT-III WORKING WITH MS-POWERPOINT

Introducing power point, Use of power point presentation, Creating new slides saving, Opening and printing. **Home Tab: New** slide, Layout, Reset, Delete, Setting text direction, Align text, Convert to smart art, drawing options. **Insert Tab: Table** picture, clipart, photo album, smart art, shapes and chart, movie and sound, hyperlink and action, text box, word art, object **Design Tab:** Page setup option, slide orientation, applying various themes, selecting background style and formatting it. **Animation Tab: Custom** animation for entrance, exit and emphasis, applying slide transition, setting transition speed and sound, animation on rehears timing. **Slide show & View Tab: Start** slide show options, setup option. **View Tab: Presentation** views, colours and window option.

UNIT-IV WORKING WITH MS-ACCESS

Front end and back end of application, Introduction to DMBS, features of dbms, Creating blank databases, Saving it in accdb format. Defining data type in MS Access. **Home Tab: Datasheet** view, design view, pivot chart view, pivot table view, sort and filter prions. **Create Tab: Creating** tables, creating reports, query wizard. **External Data Tab: Importing** data from access and excel sheet, exporting data to excel and MS word. **Datasheet Tab:** Relationships, fields and columns options, Data type and formatting options.

UNIT-V ANIMATION AND GRAPHICS

Basic concept of 2D/3D Animation, Principle of animation, application of Multimedia, hardware and Software resources requirement for animation, introduction of various file formats (.mpeg, .gif, .jpeg,. mp4, .tif, .flv) **Creating a new movie in flash :**Get set Up, Input Text, Animate Text, Drawing and painting with tools, brush, create basic shapes like oval, Rectangle & Polystar Tools, Tools working with object & filing the object. Transformation object properties dialog box, creating layers motion tweeing, shape tweeing, Mask layers, basic action scripts, importing sound trough Flash.

MARKSDISTRIBUTION PAPER – I

INTERNET APPLICATION & E-COMMERCE

Proposed Syllabus

UNIT - I **Introduction to HTML**

Introduction to Internet & World Wide Web

Internet- Indian and the Internet, Profile of Indian Surfer, History of the Internet, Indian Internet History, Technological Foundation of Internet, Application in Internet Environment, Movement of files/data between two computers, TCP/IP, IP Addresses, Domain Name System, Domain Name Services, allocation of second level domains in India, Internet & India.

World Wide Web (WWW) - WWW consortium browsing and Information retrieval, exploring the WWW, address : URL.

UNIT – II **Introduction to HTML & Designing Web Page**

Concept to Website, Web standards, What is HTML, HTML documents / file, HTML Editor, Explanation of the structure of Homepage, Elements in HTML Documents, HTML Elements, HTML Tags & Basic HTML Tags, viewing the source of web page & downloading the web page source, Extensible HTML, CSS, XML, XSL.

HTML Document Structure - Head Section

IIlustration of Document Structure, Mark-up elements within the Head : BASE,ISINDEX, LINK, META, TITLE, SCRIPT.

UNIT – III **HTML Document Structure & HTML Forms**

Body Section - IIlustration, Body elements, Background, TEXT BODY element, ADDRESS, BLOCKQUOTE, TABLE, COMMENTS, CHARACTER Emphasis modes, Logical styles, Physical Styles, FONT, BASEFONT and CENTER.

Image, Internal and External Linking

Between Web Pages - IMG Elements,

HEIGHT, WIDTH, ALT, ALLIGN, IIlustration of IMG elements, Hypertext Anchors, NAME attribute in Anchor.

HTML Forms - Forms, Form tag, Form

Structure, Input types, Drop down menu or select menu tags, image buttons.

UNIT – IV **Introduction to E-Commerce & Business Strategy in Electronic Age**

E-Commerce - Scope & definition of language, E-commerce & Trade cycle, E-markets, E-Data Interchange, Internet Commerce, E-commerce in Perspective.

Business Strategy - The value chain,

competitive advantage, business strategy, Case-Study : e-commerce in Passenger Air Transport.

UNIT – V **B to B e-Commerce & B to C e-Commerce Business to Business e-Commerce** - Inter- organisational Transactions, Electronic markets, Electronic Data Interchange (EDI) - the nuts and bolts, EDI and business, Inter roganizational e- Commerce.

Business to Consumer e-Commerce - Consumer

trade transactions.

The elements of e-Commerce - elements,

e-visibility, e-shop online payments, delivering the goods, after sales service, Internet e-Commerce Security A web site evaluation model.

e-Business - Introduction, Internet

Bookshops, Software Supplies & support, e-newspapers, internet banking, virtual auctions, online share dealing, gambling on net, e-diversity.

RELATIONAL DATABASE MANAGEMENT SYSTEM

Proposed Syllabus

UNIT – I **DATABASE SYSTEM CONCEPT & ENTITY RELATIONSHIP MODEL :**
Operational data, why database, data independence, an Architecture for a Data base system, DDL & DML, Data Dictionary, Data Structures and Corresponding Operators, Data Models, The Relational approach, The Network approach, DBMS storage structure and access method. Entity-Relationship model as a tool for conceptual design-entities attributes and relationaships. ER diagrams; strong and weak entities Generatization; Specialization and aggregation. Converting and ER-model into relational.

UNIT – II **Relational Database Management System Relational Model :**
Structure to Relational Database, Relational Algebra, The Domain Relational, Calculus, Extended Relational- Algebra Operation, Modification of database, Views. **Relational Database Design :-** Pitfalls in Relational Database Design, Decomposition, Functional Dependencies, Normalization : INF,
2NF, BCNF, 3NF, 4NF, 5NF operations not involving
cursors, Operations involving cursors, dynamic statements, security & intergrity security specification in SQL.

UNIT – III **RELATIONAL DATABAWSE DESIGN :**
Relational Algebra, Traditional Set Operations, Attributes Names for Derived Relations, special relational operations, further normalization, functional dependence. First, second and third normal forms, BCNF Forms, relations with more than one candidate key, Good and bad decompositions, fourth normal form, fifth normal form, De-normalization.

UNIT – IV **Introduction to RDBMS Software - Oracle**

(a) Introduction : Introduction to personnel and Enterprises Oracle, Data Types, Commercial Query Language, SQL, SQL * PLUS.

(b) DDL and DML : Creating Table, Specify Integrity Constraint, Modifying Existing Table, Dropping Table, Inserting, Deleting and Updating Rows in as Table, Where Clause, Operators, ORDER BY, GROUP Function, SQL Function, JOIN, Set Operation, SQL Sub Queries. Views : What is Views, Create, Drop and Retrieving data from views.

UNIT – V **(a) Security :** Management of Roles, Changing Password, Granting Roles & Privilege, with drawing privileges.

(b) PL/SQL : Block Structure in PL/SQL, Variable and constants, Running PL/SQL in the SQL*PLUS, Data base Access with PL/SQL, Exception Handling, Record Data type in PL/S!L, Triggers in PL/SQL.

B.Com-III

PAPER - I

PROGRAMMING IN VISUAL BASIC

(Paper Code-1165)

UNIT-I Introduction to Visual Basic, Programs, Variables

Editions of Visual Basic, Event Driven Programming, Terminology, Working environment, project and executable files, Understanding modules, Using the code editor window, Other code navigation features, Code documentation and formatting, environment options, code formatting option automatic code completion features. Introduction to objects, Controlling objects, Properties, methods and events, Working with forms, interacting with the user: MsgBox function, InputBox function, Code statements, Managing forms, Creating a program in Visual Basic, Printing, Overview of variables, User-defined data types, constants working with procedures, Working with dates and times, Using the Format Function, Manipulating text string.

UNIT-II Controlling Program Execution, Working with Control

Comparison and logical operators, If....Them statements, Select Case Statements looping structures, Using Do....Loop structures, For....Next statement, Exiting a loop. Types of controls, Overview of standard controls, ComboBox and ListBox, OptionButton and Frame controls Menu, Status bars, Toolbars, Advanced standard controls, ActiveX controls, Insertable objects, Arrays, Dynamic Arrays.

UNIT-III Procedure, Function Error Trapping & Debugging

Procedure, Function, call by value, call by reference, Type definition, with object, Validation, Overview of run-time errors, error handling process, The Error object, Errors and calling chain, Errors in an error-handling routine, Inline error handling, Error handling styles, General error-trapping options Type of errors, Break mode Debug toolbar, Watch window, Immediate window, Local window, Tracing Program flow with the Call Stack.

UNIT-IV Sequential and Random Files :

Saving data to file, basic filling, data analysis and file, the extended text editor, File organization Random access file, The design and coding, File Dialog Box, Picture Box, Image box, Dialog Box, using clipboard, Copy, Cut, Paste of Text & Picture in Clipboard, Use of Grid Control Multiple document interface, Single document interface.

UNIT-V Data Access Unsing the ADO Data Control & Report Generation

Overview of ActiveX data Objects, Visual Basic data access features, Relational database concepts Using the ADO Data control to access data, Overview of DAO, RDO, Data Control, structured query language (SQL), Manipulating data Using Data Form Wizard. Overview of Report, Data Report, Add groups, Data Environment, Connection to database Introduction to Crystal Report Generator.

B.Com-III

PAPER - II

SYSTEM ANALYSIS, DESING & MIS

(Paper Code-1166)

UNIT-I Introduction -

Systems Concepts and the information systems environment : Definition of system, Characteristics of system, elements of system, types of system, The system Development life cycle : consideration of candidates system. The Role of system Analyst : Introduction, the multiphase role of the analyst, the analyst / user interface, the place of the analyst in the MIS Organization

UNIT-II System Analysis, Tools of Structured Analysis, Feasibility Study-

System Planning and initial investigation : Basis for planning in systems analysis, initial investigation, fact finding, fact analysis, determination of feasibility.

Information Gathering : Kind of information, Information gathering tools.

Structured Analysis, Flow chart, DFD, Data Dictionary, Decision Tree, Structured English, Decision Table. System Performance, Feasibility Study. Data Analysis.

UNIT-III System Design & System Implementation -

The process of Design Methodologies. Input Design, Output Design, Form Design, File Structure, File organization, data base design, System Testing, the test plan, quality assurance, data processing auditor. Conversion, Post implementation review, Software Maintenance.

UNIT-IV Introduction to MIS & Other Subsystem-

Evolution of MIS, Need of MIS, Definition & Benefits of MIS, Characteristic, Role component of Information system, data base as a future of MIS, Decision making, logic of Management Information system, Structure of MIS.

UNIT-V Information System Concept -

Difference between Transaction Processing. System (TPS) and Management Information System, How MIS works, MIS and Information Resource Management, Quality information Building Blocks for the information system, information system concept, Other system characteristic (Open & Closed System), difference between MIS & Strategic System, Adaptive system, Business function information system.