

**A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**B.Com(C.A.) – I Semester**

**Course: COMPUTER FUNDAMENTALS & PHOTOSHOP**

**Course Code: CFP1204**

**No. of Hours/Week: 5**

**Course Objective:**

To explore the Fundamentals of computers and reinforce computer vocabulary, particularly with respect to personal use of computer hardware and software and also to enable the students to explore Photoshop, work with layer techniques, gain an understanding of how to do basic photo repairs and color enhancements.

**Course Outcomes:**

At the end of the course the student will be able to

1. Understand the vocabulary of key terms related to the computer and able to identify the components of a personal computer system.
2. Identify the working principles of input and output devices and basics of different types of memories.
3. Work with the Photoshop workspace
4. Make use of Photoshop tools to modify and adjust images.
5. Create new layers; perform other basic layer functions and usage of filters.

**UNIT-I**

Introduction to Computers, Characteristics and Limitations of Computer, Block Diagram of Computer, Types of Computers, Uses of Computers, Computer Generations. Number Systems: Binary, Hexa and Octal Numbering System, **Number System Conversions.**

**UNIT-II**

Input and output devices: Keyboard and mouse, inputting data in other ways, Output devices – Monitors, Printers, Types of Software: system software, Application software, commercial, open source, domain and free ware software, Memories: primary, secondary and cache memory. Windows basics: desktop, start menu, icons.

**UNIT –III**

Introduction to Adobe photoshop, Getting started with photoshop, creating and saving a document in photoshop, page layout and back ground, photoshop program window-title bar, menu bar, option bar, image window, image title bar, status bar, ruler, palettes, toolbox, screen modes, saving files, reverting files, closing files.

## **UNIT –IV**

**Images:** working with images, image size and resolution ,image editing,colour modes and adjustments , Zooming & Panning an Image,, , Rulers, Guides & Grids- Cropping & Straightening an Image,image backgrounds ,making selections.

**Working with tool box:** working with pen tool, save and load selection-working with erasers-working with text and brushes-Colour manipulations: colour modes- Levels – Curves - Seeing Colour accurately - Patch tool – Cropping-Reading your palettes - Dust and scratches- Advanced Retouching- smoothing skin

## **UNIT-V**

**Layers:** Working with layers- layer styles- opacity-adjustment layers

**Filters:** The filter menu, Working with filters- Editing your photo shoot, presentation –how to create adds ,artistic filter, blur filter, brush store filter, distort filters, noise filters, pixelate filters, light effects, difference clouds, sharpen filters, printing.

### **Additional Inputs:**

**Menus:** purpose of menus – new file- open file- print file – copying data – cut data- paste data- saving custom shape- working with modes- define brushes.

### **Text Books:**

1. Computer Fundamentals, First Edition, by Anita Goel, Pearson Education.
2. Adobe Photoshop CC Bible, First Edition, by Lisa DaNaeDayley and Brad Dayley, Wiley Publications.

### **Reference Books:**

1. Fundamentals of Computers by ReemaThareja, Oxford University Press
2. Adobe Photoshop Class Room in a Book, Adobe Creative Team.
3. Photoshop: Beginner's Guide for Photoshop - Digital Photography, Photo Editing, ColorGrading & Graphic...19 February 2016 by David Maxwell.

**A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**B.Com (C.A.) – II Semester**

**Course: ENTERPRISE RESOURCE PLANNING**

**Course Code: ERP2204**

**No. of Hours/Week: 5**

**Course Objective:**

To provide knowledge about the basic concepts of ERP, enable the students to understand various technologies and concepts used in ERP and identify the significance of various ERP Modules.

**Course Outcomes:**

At the end of the course the student will be able to

1. To understand concepts of reengineering and how they relate to ERP system implementations.
2. To understand the steps and activities in the ERP life cycle.
3. To be able to map business processes using process mapping techniques.
4. Make basic use of Enterprise software, and its role in integrating business functions.
5. Discuss recent extensions of ERP.

**UNIT-I**

**Introduction to ERP:** Overview -Benefits of ERP -ERP and Related Technologies - Business Process Reengineering - Data Warehousing – Data Mining-On-line Analytical Processing-Supply Chain Management.

**UNIT-II**

**ERP Implementation:** Implementation Life Cycle-Implementation Methodology - Hidden Costs - Organizing Implementation - Vendors, Consultants and Users-Contracts-Project Management and Monitoring.

**UNIT-III**

**Business Modules:** Business Modules in an ERP Package-Finance-Manufacturing-Human Resource-Plant Maintenance - Materials Management - Quality Management-Sales and Distribution.

**UNIT-IV**

**ERP Market** - ERP Market Place - SAP AG - PeopleSoft – Baan Company-JD Edwards World Solutions Company-Oracle Corporation-QAD -System Software Associates.

## **UNIT-V**

**ERP Present and Future:** Turbo Charge the ERP System-EIA-ERP and E-Commerce-ERP and Internet-Future Directions in ERP.

### **Additional Inputs:**

Precautions in ERP Implementation and ERP Post Implementation Options, Decision Support Systems (DSS)

### **Text Books:**

1. Alexis Leon, "ERP Demystified", Tata McGraw Hill, 1999.
2. Joseph A. Brady, Ellen F. Monk, Bret J. Wangner, "Concepts in Enterprise Resource Planning", Thomson Learning, 2001.

### **Reference Books:**

1. Vinod Kumar Garg and N.K .Venkata Krishnan, "Enterprise Resource Planning - concepts and Planning", Prentice Hall, 1998.
2. Jose Antonio Femandz, "The SAP R /3 Hand book", Tata McGraw Hill

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**B.Com(C.A.) – III Semester**

**Course: OFFICE AUTOMATION TOOLS**

**Course Code: OAT3204**

**No. of Hours/Week: 5**

**Course Objective:**

To familiarize the students in preparation of documents and presentations with office automation tools.

**Course Outcomes:**

At the end of the course the student will be able to

1. Know the basic concepts of MS-Excel
2. Understand the usage of different functions in MS-Excel.
3. Usage of different types of charts and macros
4. Know the basic concepts of MS-Access
5. Usage of queries and reports in MS-Access.

**UNIT- I**

MS-Excel: features of Ms-Excel, Parts of MS-Excel window, entering and editing data in worksheet, number formatting in excel, different cell references, how to enter and edit formula in excel, auto fill and custom fill, printing options.

**UNIT-II**

Formatting options: Different formatting options, change row height, formulae and functions, excel names. Functions: Meaning and advantages of functions, different types of functions available in Excel, financial functions, date and time, engineering, statistical, math and trig, logical, text, information, look up and reference functions, operators in excel, Database functions.

**UNIT-III**

Charts: Different types of charts, Parts of chart, chart creation using wizard, chart operations, data maps, graphs, data sorting, filtering. Excel sub totals, scenarios, what-if analysis Macro; Meaning and advantages of Macros, creation, editing and deletion of macros Creating a macro, how to run, how to delete a macro.

**UNIT-IV**

MS Access: Creating a Simple Database and Tables: Features of Ms-Access, Creating a Database, Parts of Access, Data Types and properties, adding, deleting fields, renaming the fields in a table. Tables: table creation using design view, table wizard, data sheet view, import table, link table. Forms: The Form Wizard, design view, columnar, tabular, data sheet, chart wizard.

## **UNIT- V**

Finding, Sorting and Displaying Data: Queries and Dynasts, Creating and using select queries, Returning to the Query Design, Multilevel sorts, Finding incomplete matches, showing All records after a Query, saving queries Crosstab Queries. Printing Reports: Simple table. Form and Database Printing, Defining advanced Reports, Manual Reporting, Properties in Reports, Saving Reports. Relational Databases: Flat Versus Relational, Types of Relationships, Viewing Relationships, Defining and Redefining Relationships, Creating and Deleting Relationships.

### **Additional Inputs:**

Data Validation with In-Cell Drop-Down List, Auto-Filter and Advanced Data Filtering.

### **Text Books:**

1. Computer Basics with Office Automation by Archana Kumar, I K International Publishing House.
2. Office Automation: A System Approach by Charles M. Ray, Ray, Palmer, Wohl, 3<sup>rd</sup> Edition, Thomson South-Western.

### **Reference Books:**

1. Ron Mansfield, Working in Microsoft Office, Tata McGraw Hill (200S)
2. Ed Bott, Woody Leonhard, Using Microsoft Office 2007, Pearson Education (2007)
3. Sanjay Saxena, Microsoft Office,
4. Microsoft Office, BPB Publications

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**B.Com(C.A.) – IV Semester**

**Course: PROGRAMMING IN C**

**Course Code: PC5206**

**No. of Hours/Week: 5**

**Course Objective:**

To impart basic knowledge of C Programming language so that Students will be able to develop logics and applications to solve real time problems using C.

**Course Outcomes:**

At the end of the course the student will be able to

1. Understand the fundamentals of C programming.
2. Make use of loops, decision making statements and functions to solve the problem.
3. Implement different Operations on Arrays.
4. Understand Pointers, Structures and Unions.

**UNIT- I**

Introduction to Algorithms and Programming Languages: Algorithm – Key features of Algorithms – Some more Algorithms – Flow Charts. Introduction to C: Structure of C Program – Writing the first C Program – File used in C Program – Compiling and Executing C Programs – Using Comments – Keywords – Identifiers – Basic Data Types in C – Variables – Constants – I/O Statements in C- Operators in C- Programming Examples – Type Conversion and Type Casting

**UNIT-II**

Decision Control and Looping Statements: Introduction to Decision Control Statements – Conditional Branching Statements – Iterative Statements – Nested Loops – Break and Continue Statement – Go to Statement

**UNIT- III**

Functions: Introduction – using functions – Function declaration/ prototype – Function definition – function call – return statement – Passing parameters – Scope of variables – Storage Classes – Recursive function.

**UNIT- IV**

Arrays: Introduction – Declaration of Arrays – Accessing elements of the Array – Storing Values in Array – Calculating the length of the Array – Operations on Array – one dimensional array for inter-function communication – Two dimensional Arrays –Operations on Two Dimensional Arrays, Strings: Introduction String and Character functions

## **UNIT-V**

Pointers: Understanding Computer Memory – Introduction to Pointers – declaring Pointer Variables – - Passing Arguments to Functions using Pointer – Pointer and Arrays – Passing Array to Function. Structure, Union, and Enumerated Data Types: Introduction – Nested Structures – Arrays of Structures – Structures and Functions - Unions – Enumerated Data Types.

### **Additional Inputs:**

C Pre-processor, Conditional Compilation, Header Files, Sparse Matrices, Arrays of Union Variables, Unions inside Structures.

### **Text Books:**

1. Schaum's Outline of Programming with C, by Byron Gottfried, 2nd Edition, (Indian Adapted Edition), TMH publications, New Delhi, 2006.
2. Let Us C, by Yashwant Kanetkar, 5th Edition, BPB Publications, New Delhi, 2004.

### **Reference Books:**

1. Introduction to C programming by REEMA THAREJA, OXFORD UNIVERSITY PRESS
2. COMPUTING FUNDAMENTALS & C PROGRAMMING by E Balagurusamy, Tata McGraw-Hill, Second Reprint 2008, ISBN 978-0-07-066909-3.
3. Programming with ANSI and Turbo C, by Ashok N Kamthane, Pearson Edition Publ, 2002.
4. The Spirit of C An Introduction to modern Programming, by Henry Mullish&HuubertL.Cooper, Jaico Pub. House, 1996.



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**DEPARTMENT OF COMPUTER SCIENCE**  
**B.Com (C.A.) – V Semester**

**Course: DATA BASE MANAGEMENT SYSTEMS**

**Course Code: DBMS5208**

**No. of Hours/Week: 5**

**Course Objective:**

To present an introduction to database management systems, with an emphasis on how to organize, maintain and retrieve - efficiently, and effectively - information from a DBMS.

**Course Outcomes:**

At the end of the course the student will be able to

1. Understand DBMS concepts, data models and Architecture.
2. Understand ER concepts and ER mapping to relational model
3. Improve the database design by normalization.
4. Make use of SQL to retrieve and maintain relational database.
5. Illustrate various constructs in PL/SQL.

**UNIT-I**

Overview of Database Management System: Introduction, Data and Information, Database, Database Management System, Objectives of DBMS, Evolution of Database Management Systems, Classification of Database Management System.

**UNIT-II**

File-Based System, Drawbacks of File-Based System , DBMS Approach, Advantages of DBMS, Data Models , Components of Database System, Database Architecture.

**UNIT-III**

Entity–Relationship Model: Introduction, The Building Blocks of an Entity– Relationship, Classification of Entity Sets , Attribute Classification, Relationship Degree, Relationship Classification, Generalization and Specialization, aggregation and composition, CODD’S Rules, Relational Data Model , Concept of ,Relational Integrity.

**UNIT-IV**

Structured Query Language: Introduction, History of SQL Standard, Commands in SQL, Data types in SQL, Data Definition Language (DDL), Selection Operation Projection Operation, Aggregate Functions, Data Manipulation Language, Table Modification, Table Truncation, Imposition of Constraints, Set Operations.

## **UNIT –V**

PL/SQL: Introduction, Structure of PL/SQL, PL/SQL Language Elements ,Data Types, Control Structure,, Steps to Create a PL/SQL Program, Iterative Control ,Types of Cursors , Procedure, Function ,Exceptions Handling, Database Triggers.

### **Additional Inputs:**

**Transaction Management and Concurrency Control:** What is transaction, Concurrency control, Concurrency control with locking Methods, Concurrency control with time stamping methods.

### **Text Books:**

1. Database System Concepts by Abraham Silberschatz, Henry Korth, and S. Sudarshan, McGrawhill, 2010.
2. Database Management Systems by Raghu Ramakrishnan, McGrawhill, 2002.
3. Fundamentals of Relational Database Management Systems by S. Sumathi, S. Esakkirajan, Springer Publications.

### **Reference Books:**

1. An Introduction to Database Systems by Bipin C Desai
2. Principles of Database Systems by J. D. Ullman
3. Fundamentals of Database System by R. Elmasri and S. Navathe
4. Database Systems Design, Implementation and Management by Peter Rob, Carlos CoronelSeventh Edition, Thomson , 2007.

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**B.Com (C.A.) – V Semester**

**Course: WEB TECHNOLOGIES**

**Course Code: WT5209**

**No. of Hours/Week: 5**

**Course Objective:**

To inculcate knowledge on web architecture, web services, client side and server side scripting technologies and to provide skills to design interactive and dynamic web sites.

**Course Outcomes:**

At the end of the course the student will be able to

1. Write well-structured, easily maintained, standards-compliant, accessible HTML code to design a web page.
2. Design well-structured, easily maintained CSS code to present HTML pages in different ways.
3. Know the basics of java script to perform client side programming
4. Build dynamic web pages using JavaScript.

**UNIT-I**

Introduction: HTML, XML, and WWW, Topologies, Bus, Star, Ring, Hybrid, Tree, Lan,Wan,Man. HTML: Basic HTML, Document body, Text, Hyper links, Adding more formatting, Lists, Tables using colors and images. More HTML: Multimedia objects, Frames, Forms towards interactive, HTML document heading.

**UNIT-II**

Cascading Style Sheets: Introduction, using Styles, simple examples, your own styles, properties and values in styles, style sheet, formatting blocks of information, layers.

**UNIT-III**

Introduction to JavaScript: What is DHTML, JavaScript, basics, variables, string manipulations, mathematical functions, statements, operators, arrays.

**UNIT-IV**

Objects in JavaScript: Data and objects in JavaScript, regular expressions, exception handling, built-in objects, events.

## **UNIT-V**

DHTML with JavaScript: Data validation, opening a new window, messages and confirmations, the status bar, different frames, rollover buttons, moving images.

### **Additional Inputs:**

XML: defining data for web applications, basic XML, document type definition, presenting XML

### **Text Books:**

1. Internet & World Wide Web How to Program by Harvey M. Deitel and Paul J. Deitel, 4/e, Pearson Education.
2. Web Technologies by Uttam Kumar Roy, Oxford University Press

### **Reference Books:**

1. Beginning Web Programming by Jon Duckett, WROX.
2. Programming world wide web by Sebesta, Pearson.

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**B.Com (C.A.) – VI Semester**

**Course: E-COMMERCE**

**Course Code: ECE6209**

**No. of Hours/Week: 5**

**Course Objective:**

To impart knowledge on the concept of E-commerce, its types and familiarize the students with various concepts of E-business models. Make the students understand Selling and marketing on web.

**Course Outcomes:**

At the end of the course the student will be able to

1. Recognize the fundamental principles of e-Business and e-Commerce
2. Describe scenarios for B2B e-commerce.
3. Identify the role of internet and extranet in E-Commerce.
4. Explain policy and regulatory issues in E-commerce.
5. Identify the necessary infrastructure for implementing E-Commerce.

**UNIT-I**

**Introduction to E-Commerce:** Scope, Definition, e-Commerce and the Trade Cycle, Electronic Markets, Electronic Data Interchange, Internet Commerce. Business Strategy in an Electronic Age: Supply Chains, Porter's Value Chain Model, Inter Organizational Value Chains, Competitive Strategy, First Mover Advantage - Sustainable Competitive Advantage, Competitive Advantage using E-Commerce - Business Strategy.

**UNIT-II**

**Business-to-Business Electronic Commerce:** Characteristics of B2B EC, Models of B2B EC, Procurement Management by using the Buyer's Internal Market place, Just in Time Delivery, Other B2B Models, Auctions and Services from traditional to Internet Based EDI, Integration with Back-end Information System, Role of Software Agents for B2B EC, Electronic marketing in B2B, Solutions of B2B EC, Managerial Issues, Electronic Data Interchange (EDI), EDI: Nuts and Bolts, EDI and Business.

**UNIT-III**

**Internet and Extranet :** Automotive Network Exchange, Largest Extranet, Architecture of the Internet, Intranet and Extranet, Intranet software, Applications of Intranets, Intranet Application Case Studies, Considerations in Intranet Deployment, Extranets, Structures of Extranets,

Extranet products and services, Applications of Extranets, Business Models of Extranet Applications, Managerial Issues. Electronic Payment Systems: Issues and Challenges.

#### **UNIT-IV**

**Public Policy:** From Legal Issues to Privacy : Legal Incidents, Ethical and Other Public Policy Issues, Protecting Privacy, Protecting Intellectual Property, Free speech, Internet Indecency and Censorship, Taxation and Encryption Policies, Other Legal Issues: Contracts, Gambling and More, Consumer and Seller Protection in EC.

#### **UNIT-V**

**Infrastructure For EC :** Network of Networks, Internet Protocols, Web- Based client/Server, Internet Security, Selling on the Web, Chatting on the Web, Multimedia delivery, Analyzing Web Visits, Managerial Issues, Equipment required for establishing EC Sites – Problems in Operation – Future of EC.

#### **Additional Inputs:**

Corporate Data Warehouses, Consumer search and Resource discovery.

#### **Text Books:**

1. David Whiteley, “E-Commerce”, Tata McGraw Hill, 2000.
2. E Business by Parag Kulakarni and Sunitha Jahirabadkar from Oxford University Press.
3. E Business by Jonathan Reynolds from Oxford University Press.

#### **Reference Books**

1. Eframi Turban, Jae Lee, David King, K. Michael Chung, “Electronic Commerce”, Pearson Education, 2000.
2. R. Kalakota and A. B. Whinston, Frontiers of Electronic Commerce, Addison Wesley.
3. David Kosiur, Understanding Electronic Commerce, Microsoft Press.
4. Soka, From EDI to Electronic Commerce, McGraw Hill.