**B.Sc., SOFTWARE**

**I YEAR – I SEMESTER**

**COURSE CODE – 7BSOA1**

**ALLIED COURSE – I - FUNDAMENTALS OF COMPUTER**

**Unit I**

Computer: Definition, Characteristics of Computers, Basic Applications of Computer, Generations of computers.

Components of Computer System: Central Processing Unit (CPU), input/output Devices, computer Memory: primary and secondary memory, magnetic and optical storage devices, Concepts of Hardware and Software.

**Unit II**

Data processing: concepts of data processing, Definition of Information and data, Basic data types, Storage of data/Information as files, Representation of data/Information.

**Unit III**

*Operating system-MS-Windows*

Operating system-Definition & 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 date and time, screensaver and appearance.

**Unit IV**

*Word Processing-MS Word*

Word Processing Basic: An Introduction to Word Processing and MS-Word, Working with documents, using tables, pictures, and charts, using mail merge and sending a letter to a group of people, creating form letters and labels, collaborating with workgroups, modifying a report, macros.

**Unit V**

*Presentation software-MS Power Point*

Creating and enhancing a presentation, creating and publishing a web presentation, modifying a presentation, working with visual elements, delivering a presentation and designing a template.

**Text Book:**

1. Fundamentals of Computers, -V.Raja Raman – Fifth Edition, PHI, 2010

**Book for Reference:**

1. PC software for windows made simple – R.K.Taxali – TMH – 1998

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**I YEAR – II SEMESTER**

**COURSE CODE – 7BSOA2**

**ALLIED COURSE – II – DESKTOP PUBLISHING**

**Unit I**

Getting started with Corel Draw : Introduction to Corel Draw - Features of Corel Draw - Corel Draw Interface Tool Box - Moving from Adobe Illustrator to Corel Draw - Common Tasks Drawing and Coloring : Introduction - Selecting Objects - Creating Basic Shapes - Reshaping Objects - Organising objects - Applying color fills and Outlines

**Unit II**

Mastering with Text : Introduction Text Tool - Artistic and paragraph text - Formatting Text -Embedding Objects into text - Wrapping Text around Object Linking - Text to Objects Applying Effects : Introduction - Power of Blends - Distortion Contour Effects - Envelopes - Lens effects -Transparency - Creating Depth Effects - Power Clips

**Unit III**

Working with Bitmap Commands : Introduction - Working with Bitmaps - Editing Bitmaps -Applying effects on Bitmaps Printing - Converting Objects to Bitmap - 3D Effect - Art Effect – Blur Effect - Color Transformation Effect – Contour Effect - Creative Effect - Distort Effect

**Unit IV**

**Getting Started with Photoshop-** Exploring the Toolbox - The New CS4 Applications -Bar & the Options Bar - Exploring Panels & Menus - Creating & Viewing a New – Document - Customizing the Interface- Setting Preferences

Introduction – Working with images – Making Selections – Resizing & Cropping Images –

**Unit V**

Getting Started with Layers – Layers Palette – Working with Layers – Hiding/Showing Layers – Flattening Images – Working with Adjustment Layers – Layer Effects.

Painting in Photoshop – Photo Retouching

**Type**

Creating Type – Type Tool – Moving the Text – Creating Paragraph Type – Resizing a bounding box – Changing the Type Settings – Converting Point Type to Paragraph Type – Converting Type Layers to Standard Layers – Type Masking

**Filters**

The Filter Menu – Filter Gallery – Extract Filter – Liquify Filter – Vanishing Point Filter – Artistic Filters – Blur Filters – Brush Stroke Filters – Distort Filters – Noise Filters – Pixelate Filters – Lighting Effects – Difference Clouds – Sharpen Filters – Sketch Filters – Stylize Filters.

**Text Books:**

1. Smart DTP Course, Soumya Ranjan Behera, 2014, BPB Publications
2. “Photoshop 6 In Depth”, David Xenakis Benjamin Levisay, DreamTech Press, New Delhi.

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**II YEAR – III SEMESTER**

**COURSE CODE – 7BSOA3**

**ALLIED COURSE – III - C PROGRAMMING**

**Unit I**

Introduction: Special features of C – Characteristics of C – Structure of C – Program – Data Types – Integer Date type – Integer Variable – Rules for naming a variable – Data declaration and expressions – Arithmetic operators – Declaration and Initialization – combined – Integer division – priority of arithmetic operators – The parentheses – The modules operator – The unary operator – other data types: floating point numbers – type “double” – types char-key words in C.

**Unit II**

Control statements: The Scan function – decision making – The if, if else statements and Nesting of if statements – updating assignment operator – Increment – decrement operator –while loop – do while loop – and for loop – Boolean values.

**Unit III**

Arrays: Introduction to arrays – Declaring an array – Initializing on array – break and continue – strings and character arrays – The conditional arrays – Functions: Introduction to functions – Printf, scanf functions – user defined functions – local and global variable –parameter for argument – functions with multiple parameter built in C library functions.

**Unit IV**

Pointers: Introduction to pointers and indirection – concept of pointer – strings static and auto classes – sprint f, strcat, strlen, scan f, stremp functions – size of operator – labels and go – structures – Introduction – period operator – initializing – passing a structure by reference.

**Unit V**

Standard input and output – putchar, getchar – getc, putc, file input and output – C processor– define un def, include, if def, if def else – miscellaneous features – type def – register and external variables.

**Text Book:**

1. Programming in C – V. Rajaraman, PHI, 2006

**Books for Reference:**

1. “Programming techniques through C” – M.G.Venkateshmurthy – Pearson Education New Delhi – 2002.
2. Programming in ANSI C – E.Balagurusamy, Sixth Edition, McGraw Hill, 2012.

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**II YEAR – IV SEMESTER**

**COURSE CODE – 7BSOA4**

**ALLIED COURSE – IV – INTERNET AND ITS APPLICATIONS**

**Unit I**

Introduction to Computers Programming Language types - History of Internet - Personal Computers - History of World Wide Web- Micro software .NET Java Webresources.

**Unit II**

Web Browsers- Internet Explorer- connecting to Internet - Features of Internet explorer 6 Searching the Internet- online help and tutorials- File Transmission Protocol (FTP) - Browser settings.

**Unit III**

Attaching a file - Electronic mail - Creating an E-mail id - Sending and Receiving mails-attaching a file- Instance messaging - other web browsers

**Unit IV**

Introduction to HTML headers – Tags - Linking- Images-special characters and line breaks- Lists - tables and formatting - simple HTML programs.

**Unit V**

 E-marketing - consumer tracking - Electronic advertising search engine - CRM credit card payments - Digital cash and e-wallets micro payments-smart card (Online Ticket Reservation, Internet Banking, E-Learning)

**Textbook:**

1. Internet and World Wide Web Third edition H.M.Deital, P.J. Deital and A.B.Goldberg-PHI

**Book for Reference:**

1. The Internet- Complete Reference Harley hann, Tata McGraw

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