

Course code: 22BSOA1	Allied- IA Office Automation	T/P T	C 3	H/W 3
Objectives	<ul style="list-style-type: none"> ➤ To learn the office software suite and do basic operations on documents ➤ To learn formatting features of Word package and design page layout, tables and news columns ➤ To learn the Excel package and create worksheets, workbooks, formulas to fill the data automatically, draw charts from data and perform what-if analysis. ➤ To learn Access package and design database elements Table, Query, Form, Reports and manipulate them. ➤ To learn powerpoint package and make presentation slides with various layouts, formats and animations. 			
Unit -I	MS Word Exploring Word 2007: Working in the Word Environment – Opening, Moving Around in, and closing Document – Creating and Saving A Document – Previewing and Printing Document – Editing and Proofreading Documents: Making Changes to document – Inserting Saved Text – Finding the Most Appropriate Word – Reorganizing a Document Outline – Finding and Replacing Text – Correcting spelling and Grammatical errors – Finalizing Document.			
Unit-II	MS Word Changing the Look of Text: Quickly Formatting Text and Paragraphs – Manually changing the look of characters – Manually changing the look of paragraphs – Creating and modifying Lists-Presenting Information in Columns and Tables : Presenting Information in Columns – Creating Tabular List – Presenting Information in a Table – Formatting Table Information – Performing Calculations in a Table- Using a Table to control Page Layout.			
Unit -III	MS Excel Setting Up a Workbook : Creating Workbooks – Modifying Workbooks - Modifying Worksheets – Working with Data and Data Tables : Entering and Revising Data – Moving Data within a Workbook- Finding and Replacing Data – Correcting and Expanding Upon Worksheet Data – Defining a Table – Performing Calculations on Data : Naming Groups of Data – Creating Formulas to Calculate Values – Summarizing Data that meets Specific Conditions – Finding and Correcting Errors in Calculations- Changing Document Appearance.			
Unit- IV	MS-Access: Introduction – Parts of an Window: - Creating a New Data Base – Table Wizard – Renaming – Saving the Database – Relationships – Query – Form – Reports – Exiting MS-Access.			
Unit- V	MS PowerPoint Starting a New Presentation – Working with Slide Text : Entering Text – Editing Text – Adding and Manipulating Text Boxes –Correcting and Sizing text – Checking Spelling – Finding and replacing text and fonts – Changing the size, Alignment, Spacing – Adjusting the Slide Layout, Order and Look : Changing the Layout of a slide – Rearranging Slides in a Presentation – Applying a theme -Switching to a Different Color Scheme – Adding Shading and texture to the background of a slide – Delivering a Presentation Electronically.			
Text Book: Joyce Cox and Team, 2009 <i>Step by Step 2007 Microsoft Office System</i> , PHI learning Private ltd, New Delhi.				
Reference Book: Sanjay Saxena, 2006 <i>MS-Office 2000 for everyone</i> , Vikas Publishing House Pvt. Ltd, Reprint.				
Outcomes	<ul style="list-style-type: none"> ➤ To be able to create documents in office packages, store and retrieve them. ➤ To be able to design letters, reports, books, wrapper pages and perform spelling and grammar check. ➤ To be able to create workbooks for business applications and perform powerful what-if analysis on data by grouping and classifying them. ➤ To be able to create and maintain database for any applications and design colorful forms and reports based on user-defined queries. ➤ To be able to make colorful presentations for education/business/meetings with powerpoint slides. 			

Course code: 22BSOAP1	Allied Practical-IA	T/P	C	H/W
	Office Automation Lab	T	2	2

Objectives	<ul style="list-style-type: none"> ➤ To create letter, report, book chapters, news columns and wrappers using word package. ➤ To create production letters by merging data from data source with main document for mass communication ➤ To create excel worksheet with data for the given problem and autofill formulae, perform what-if analysis and draw charts. ➤ To create database for the given application, add query, form and report and make it as a full-fledged database system. ➤ To create powerpoint presentation with colourful slides for the given application
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MS - WORD

1. Preparing an Official Letter / Business Letter / Circular Letter Covering formatting commands - font size and styles - bold, underline, upper case, lower case, superscript, subscript, indenting paragraphs, spacing between lines and characters, tab settings etc.,
2. Preparing a newsletter: To prepare a newsletter with borders, two columns text, header and footer and inserting a graphic image and page layout.
3. Creating and editing the table to create a table using table menu, to create a monthly calendar using cell editing operations like inserting, joining, deleting, splitting and merging cells, to create a simple statement for math calculations viz. Totalling the column.
4. Creating numbered lists and bulleted lists to create numbered list with different formats (with numbers, alphabets, roman letters), to create a bulleted list with different bullet characters.
5. Printing envelopes and mail merge, to print envelopes with from addresses and to addresses, to use mail merge facility for sending a circular letter to many persons, to use mail merge facility for printing mailing labels.
6. Using the special features of word to find and replace the text, to spell check and correct, to generate table of contents for a document.

MS - EXCEL

7. Using formulas and functions: To prepare a Worksheet showing the monthly sales of a company in different branch offices (Showing Total Sales, Average Sales).
8. Creating a Chart: To create a chart for comparing the monthly sales of a company in different branch offices.
9. Sorting Data, Filtering Data and creation of Pivot tables.
10. Create a sales table using the following data :

Item	Year1	Year2	Year3	Year4
Rice	1000	1050	1100	1200
Sugar	950	1050	1150	1200
Dal	1100	1200	1200	1300

- a. Draw the bar graph to compare the sales of the three items for four years.
- b. Draw a line graph to compare the sales of three items for four years using insert option.
- c. Use condition, to highlight all the cells having value ≥ 1000 with red color (Use conditional formatting).

MS - POWERPOINT

11. Creating a new presentation based on a template – Using Auto content wizard, design template and plain blank presentation.
12. Creating a presentation with slide transition – Automatic and Manual with different effects.
13. Creating a presentation applying custom animation effects – applying multiple effects to the same object and changing to a different effect and removing effects.
14. Creating and printing handouts.

MS - ACCESS

15. Create a database “Student” with
 - a. At least one table named “Mark Sheet” with field name “Student Name, Roll Number, Mark1, Mark2, Mark3, Mark4, Total”
 - b. The data types are, Student Name : text, Roll Number : number, Mark1 to Mark4 : number, Total : number. Make Roll Number the primary key.
 - c. Enter data in the table. The total must be calculated using update query.
 - d. Use query for sorting the table according to the descending/ascending order of the total marks.
16. In addition to the table above,
 - a. Add an additional field “Result” to the “Mark Sheet” table.
 - b. Enter data for at least 10 students.
 - c. Calculate the result for all the students using update query. (If total \geq 200, then pass, else fail).
 - d. Search the students, whose name starts with “An”.
 - e. Show the names and total marks of the students who have passed the examination.

Reference and Textbooks:-

Joyce Cox and Team, 2009 *Step by Step 2007 Microsoft Office System*, PHI learning Private Ltd, New Delhi.

Sanjay Saxena, 2006 *MS-Office 2000 for everyone*, Vikas Publishing House Pvt. Ltd, Reprint.

Outcomes

- To be able to open, Save and close and integrate the documents from other packages.
- To be able to format text in word documents, design layouts and preview or print them.
- To be able to create worksheets with data for the given application and generate statistical reports and summary of data for what-if analysis.
- To be able to design data tables and manipulate them according to user requirements.
- To be able to create colourful presentations in different layouts, slide designs and with animations.

Course code: 22BSOA2	Allied- IB		
	T/P	C	H/W
	PROGRAMMING IN C		
	T	3	3
Objectives	<ul style="list-style-type: none"> ➤ To learn the fundamentals of computer programming ➤ To learn the use of operators and statements in C language ➤ To learn the ways to write user defined functions, arrays and string data. ➤ To get know-how knowledge on pointers, structures and union features in C ➤ To learn the importance of file storage and create simple data files. 		
Unit -I	Overview of C: Introduction to algorithm, flowchart, structured programming concept, programs – Compiler, Interpreter. Introduction to C Language: The C character set, identifiers and keywords, data types, constants, variables and arrays, declarations, expressions, statements, type conversion, symbolic constants.		
Unit-II	Operators, I/O functions and Control Structures in C Operators and expressions: Arithmetic operators, unary operator, relational and logical operator, assignment operators, the conditional operator, type conversion, Library function. Data input and output: Single character input, single character output, scanf, printf, puts gets functions, interactive programming. Control statement: Branching: if else statement, Looping, nested control structure, switch statement, jumping statements.		
Unit- III	Functions: Overview, function prototypes, passing arguments to a function, recursion. Arrays: Defining an array, passing array to functions, multidimensional arrays, strings: one dimensional character array, array of strings.		
Unit- IV	Pointers: Fundamentals, passing pointers to a function, pointers and one dimensional arrays, dynamic memory allocation, operation on pointers, pointer to an array, pointer to string, pointer to structure, pointers to function, array of pointers. Structures and unions: Defining a structure, processing a structure, user defined data types, structure and pointers, passing structure to function, self-referential structures, and union.		
Unit -V	Data files: opening and closing a data file, File Management Functions, reading and writing a data file, processing a data file, and unformatted data file, concept of binary file, Random access.		
Reference and Textbooks:- (APA Format)			
Brian W Kernighan & Dennis Ritchie, 2001 <i>The c programming language</i> , IInd edition Eastern Economy Edition, Prentice Hall Byron S Gottfried, 2010 <i>Programming with C</i> , Schaum’s outlines 2nd Edition. Forouzan, 2007 <i>Computer Science: A Structured Programming Approach Using C</i> , 3rd Cengage Learning PradipDey, ManasGhosh,2007 <i>Programming in C</i> , Oxford Higher Education YashavantKanetkar,2008 <i>Working with C</i> , BPB publication			
Outcomes	<ul style="list-style-type: none"> ➤ To be able to understand the structured programming concepts, Tokens and Use of different Data types in a computer program. ➤ To be able to use Operators, Input and Output functions and Control Structures in C Programs ➤ To be able to write programs to solve simple programs involving few input data using single, Multi dimensional Arrays and Functions, ➤ To become familiar with Structures and Unions in grouping data in user-defined ways. ➤ To be able to write programs to get data from user and store in files. 		

Course code: 22BSOAP2		Allied Practical-I B Programming in C Lab	T/P T	C 2	H/W 2
Objectives	<ul style="list-style-type: none"> ➤ To learn the basics of C programming language and write solution to a problem by writing a C program. ➤ To learn the use of various operators and control statements in C to solve problems. ➤ To learn the use of array data structure to group homogeneous data together and process them. ➤ To learn how to create user defined functions, pointers and use them in solving problems ➤ To learn how to create and manipulate data files using C program. 				
<ol style="list-style-type: none"> 1. Implementation of the various Data Types in C. 2. Demonstration of for loop. 3. Demonstration of do...while loop. 4. Demonstration of while loop. 5. Demonstration of nested if (Hint: Use logical operators). 6. Demonstration of switch... case structure. 7. Implementation of arrays. 8. Implementation of multidimensional arrays (Hint: implement matrix operation). 9. Implementation of functions (Hint: Demonstrate call by value, call by reference). 10. Demonstration of various string operations (Hint: Usage of user defined functions only allowed). 11. Demonstration of pointer operations. 12. Demonstration of recursion (Hint: GCD, factorial, Fibonacci series). 13. Implementation of structures (Hint: simple structure operations, array of structures). 14. Implementation of pointers to structures. 15. Demonstration of dynamic allocation of memory (Hint: malloc, calloc, realloc, free). 16. Demonstration of various file operations on different types of files. 					
Reference and Textbooks:- (APA Format)					
<p>Brian W Kernighan & Dennis Ritchie, 2001 <i>The c programming language</i>, IInd edition Eastern Economy Edition, Prentice Hall.</p> <p>Byron S Gottfried, 2010 <i>Programming with C</i>, Schaum's outlines 2nd Edition.</p> <p>Forouzan, 2007 <i>Computer Science: A Structured Programming Approach Using C</i>, 3rd Cengage Learning</p> <p>PradipDey, ManasGhosh, ,2007 <i>Programming in C</i>, Oxford Higher Education.</p>					
Outcomes	<ul style="list-style-type: none"> ➤ Understand basic structure of C program and concepts in problem solving. ➤ Design solution procedures to solve simple problems ➤ Design solution procedures to solve complex problems using control statements and loops. ➤ Use pointers in programs instead of arrays in order to use computer's memory economically. ➤ Create and manipulate files for permanent storage and retrieval of data. 				

Course code: 22BSOA3	Allied-II A	T/P	C	H/W
Electronic Publishing		T	3	3
Objectives	<ul style="list-style-type: none"> ➤ To understand the building blocks of desktop publishing using Page Maker and Photoshop packages. ➤ To understand the layers and tools in photoshop for photo editing ➤ To understand the basic features of PageMaker ➤ To understand various formatting features of PageMaker ➤ To understand graphics handling features of PageMaker 			
Unit -I	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. Working with images: Introduction - Making Selections – Resizing & Cropping Images.			
Unit-II	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. Filters: The Filter Menu – Filter Gallery – Filter Effects – Lighting Effects.			
Unit III	Getting started with Page maker: PageMaker Basics - Starting PageMaker - About the work area - Using the toolbox - working with palettes - Viewing pages - Working with text and graphics - Moving between pages, adding and deleting pages - Working with multiple open publications.			
Unit IV	Drawing tools and text tools: Different drawing tools - Text tools - Character formatting, paragraph formatting - Controlling windows and orphans - Controlling page breaks, tabs and hyphenation - Grid manager - Printing a document.			
Unit V	Importing Graphics: Placing graphics - Sizing and cropping graphics – OLE - Embedding an OLE object. Master Pages: Creating a master page - Numbering pages - Setting up ruler guides - Applying master page design.			
Reference and Text Books: Adele Droblas Greenberg, Seth Greenberg, 2001 <i>The Complete Reference Photoshop 6</i> , McGraw-Hill Education Carolyn M. Connally, 2002 <i>PageMaker 7 The Complete Reference</i> , Osborne/McGraw- Hill. David Xenakis Benjamin Levisay, 2001 <i>Photoshop 6 in Depth</i> , 1 st Edition, Paraglyph Press. Ramesh Bangia, 2015 <i>Learning Page maker 7</i> . First edition, Khanna Book Publishing Company. Satish Jain, <i>PageMaker 7, Training Guide</i> , BPB Publications				
Outcomes	<ul style="list-style-type: none"> ➤ To be able to edit and enhance pictures in photoshop for better display and printing ➤ To be able to use layers effectively to place multiple content with transparency ➤ To be able to edit and create pages in book chapter or advertisement using PageMaker ➤ To be able to use text and drawing tools on pages ➤ To be able to crop and enhance the features of graphics on pages. 			

Course code: 22BSOAP3	Allied Practical –II A			T/P	C	H/W
	Electronic Publishing Lab			P	2	2
Objectives	<ul style="list-style-type: none"> ➤ To learn and use the tools available in Photoshop in enhancing given images ➤ To learn cropping of images using tools in photoshop ➤ To learn page design in PageMaker ➤ To learn designing a book content and its wrapper ➤ To learn designing columns for paper news 					
Photoshop						
<ol style="list-style-type: none"> 1. Create a Postcard in Photoshop 2. Create a Photo Collage in Photoshop 3. Enhance Images in Photoshop 4. Remove the background of an image in Photoshop 5. Design a Logo for your institution in Photoshop 6. Create a Mirror Image Effect in Photoshop 						
PageMaker						
<ol style="list-style-type: none"> 7. Create a Label using PageMaker 8. Create a Visiting card in PageMaker 9. Create a notice board in PageMaker 10. Design a Wrapper for a Book in PageMaker 11. Design an advertisement for a newspaper in PageMaker 						
Reference and Textbooks:- (APA Format)						
<p>C.J.Date, 1990 “<i>An Introduction to Data Base Systems,</i>”, Volume L Addison Wesley, Reading, MA</p> <p>R Elmasri, S B Navathe, 2010 <i>Fundamentals of Database Systems</i>, D V L N Somayajulu, S K Gupta, 6th Edition, Pearson Education. (Chapter I,II,III,IV,VIII,IX,X)</p> <p>H.F. Korth, A Silberschatz and S. Sudarasan, 2010 “<i>Database System Concepts</i>”, Computer Science Series, McGraw-Hill.</p>						
Outcomes	<ul style="list-style-type: none"> ➤ To be able to process given images and enhance their quality ➤ To be able to design pages using tools in PageMaker ➤ To be able to design logo, visiting card, advertisement etc. ➤ To be able to do full fledged desktop publishing ➤ To be able to design news paper columns with text and images 					

Course code: 22BSOA4		Allied- II B	T/P	C	H/W
		Web Design using HTML	T	3	3
Objectives	<ul style="list-style-type: none"> ➤ To learn the history and fundamentals of Hyper Text Markup Language (HTML) ➤ To learn the structure of an HTML document and design a web pages with hyperlinks ➤ To learn to create data in tables and format them suitably ➤ To learn to design data forms with form elements ➤ To learn to specify internal and external style sheets to control the appearance of a web page 				
Unit -I	HTML-History of HTML- HTML Generation-HTML documents - Anchor tag-Hyperlinks-Sample HTML documents.				
Unit-II	Head and body section-Header section-Title-Prologue-Links- Colorful webpage-Comment line-Sample HTML documents-Lists- Ordered lists-Unordered lists-Nested lists.				
Unit- III	Creating tables – Aligning Table elements – Working with advanced tables – Creating Frames – Frame concepts.				
Unit -IV	Creating Forms – Formatting and Designing forms – Image Maps – Working with image Map region types.				
Unit- V	Layers – Positioning a layer – Attaching Scripts to layers – Nesting Layers – Style Sheets – Exploring the properties of a style.				
Reference and Textbooks:- (APA Format) <i>World Wide Web design with HTML</i> : C.Xavier <i>HTML (With Dynamic HTML)</i> : Vishnu P.Singh					
Outcomes	<ul style="list-style-type: none"> ➤ To be able to design simple web pages ➤ To be able to control the design of web pages from different sections of the document ➤ To be able to design table of data and formatting with colors and backgrounds ➤ To be able to create frames to divide the screen into multiple independent sections ➤ To be able to specify and use internal and external style sheets and format web pages with different styles without rewriting code. 				

Course code: 22BSOAP4	Allied Practical- II B		T/P	C	H/W
	Web Design using HTML Lab		P	2	2
Objectives	<ul style="list-style-type: none"> ➤ To learn and use HTML tags and design web pages ➤ To learn text formatting features ➤ To learn image formatting features ➤ To learn Table creation and formatting ➤ To learn Style sheets and Frames for managing screen space. 				
<ol style="list-style-type: none"> 1. Write a HTML Program to illustrate body and pre tags. 2. Write a HTML Program to illustrate Font tag. 3. Write a HTML Program to illustrate comment, h1...h6, and div tag. 4. Write a HTML Program to illustrate text formatting tags. 5. Write a HTML Program to illustrate Order List tag. 6. Write a HTML Program to illustrate Unordered List tag. 7. Write a HTML Program to illustrate Nested and Definition tag. 8. Write a HTML Program to illustrate Image tag 9. Write a HTML Program to illustrate Hyper Link tag (Anchor tag) 10. Write a HTML Program to illustrate Table tag. 11. Write a HTML Program to illustrate Frame tag. 12. Write a HTML Program to illustrate Form tag. 13. Write a HTML Program to illustrate CSS (cascading style sheet). 14. Write a HTML Program to illustrate Layer. 15. Write a HTML Program to create a Colorful webpage. 					
Text and Reference Books:					
<p><i>World Wide Web design with HTML : C.Xavier</i></p> <p><i>HTML (With Dynamic HTML) : Vishnu P.Singh</i></p>					
Outcomes	<ul style="list-style-type: none"> ➤ To be able to design static content web pages ➤ To be able to design a website containing pages that are linked with other pages and with other websites ➤ To be able to format background with images ➤ To be able to specify styles for formatting multiple websites with same formatting features ➤ To be able to divide the screen into multiple independent frames and load different contents in each frame. 				