BCA Syllabus Grid 2024-25

SEMESTER	SUBJECT
II	Office Automation Tools(T) Office Automation Tools(P) Programming in C(T) Programming in C(P)

II SEMESTER **B.C.A. (HONORS)** **Time: 3Hrs/Week**

OFFICE AUTOMATION TOOLS **Max.Marks:100**

Course Objectives:

- To introduce the environment of GUI in Ms-Word and its features.
- To introduce the fundamental concepts using Ms-Word and its features to make it more useful.
- To provide hands-on use of Word, Excel and PowerPoint.

Course Outcomes:

The students will be able to

1. Understand the concept of Word Processor and use its features.(L2)
2. Applying advanced features of Ms-Word to make day to day usage easier.(L3)
3. Experiment with Ms-Excel Environment.(L3)
4. Create worksheets and use advanced features of Excel.(L6)
5. Create presentations and insert multimedia items in them.(L6)

Syllabus

UNIT–I : Introduction to Ms-Office & Ms-Word

MS-Word: Features of MS-Word, MS-Word Window components, working with formatted text, Shortcut keys, Formatting documents: Selecting text, Copying & moving data, Formatting characters, changing cases, Paragraph formatting, Indents, Drop Caps, Using format painter, Page formatting, Header &footer, Bullets & numbering, Tabs, Forming tables. Finding & replacing text, go to(F5) command, proofing text (Spellcheck, Auto correct),

Case Study:

1. Create a document to write a letter to the DM&HO of the district complaining about Hygienic conditions in your area.

2. Create a document to share your experience of your recent vacation with family.

UNIT–II :Ms-Word Advanced Features

Difference between Wizard and Template - Customize the Quick Access ToolBar – Macros: Purpose – Creating Macro – Using Macro – Storing Macro - Inserting pictures: From Computer, Online Pictures – Insert 3d Models - Insert Shapes – Insert Text Box – Insert Equation, Hyperlinks- Tables : Insert tables - Mail merge ,Printing documents, Tables : Insert tables, Mathematical calculations on tables data. Insert Text Box etc.

Case Study:

1. Create a document to send a holiday intimation to all the parents at time about Dasara Vacation.

2. Create a document to create a Time Table of your class using tables.

UNIT–III: Introduction to Ms-Excel & Its Features

MS-Excel: Excel Features, Spreadsheets, workbooks, creating, saving & editing a workbook, Renaming sheet, cell entries(numbers, labels, and formulas),spell check, find and replace, Adding and deleting rows and columns Filling series, fill with drag, data sort, Formatting worksheet, Functions and its types, Some useful Functions in excel(SUM,AVERAGE,COUNT, MAX,MIN, IF),

Case Study:

1. Create a worksheet with your class marks displaying total, average, top marks in the class and least marks in the class.

2. Create a Worksheet with employee no, name, job, salaries of 10 employees, calculate DA,TA,HRA ,Gross Salary and Net Salary. i. Find the sum of HRA's of Total employees.

ii. Find the average DA

iii. Display the Maximum salary of the employee.

UNIT-IV: Ms-Excel Advanced Features

Cell referencing (Relative, Absolute, Mixed), What-if analysis, Introduction to charts: types of charts, creation of charts, printing a chart, printing worksheet – Sort – Filters – View Menu- Goal Seek –Scenarios.

Case Study:

1. Prepare a chart with height and weights of you classmates in at least 3 types of charts.

2. Demonstrate the use of Filter with the attendance data of your class.

UNIT-V: Ms-PowerPoint and its Applications

MS-PowerPoint: Features of Powerpoint, Uses, components of slide, templates and wizards, using template, choosing an auto layout, using outlines, adding subheadings, editing text, formatting text, using master slide, adding slides, changing color scheme, changing background and shading, adding header and footer, adding clip arts and auto shapes. Various presentations, Working with slide sorter view(deleting, duplicating, rearranging slides),adding transition and animations to slide show, inserting music or sound on a slide, viewing slideshow, Printing slides.

Case Study:

1. Prepare a presentation with your achievements and experiences in College.

2. Create a Presentation of your organization with pictures, clip arts and animations.

Text Books:

1. Computer Fundamentals–Pradeep. K.Sinha: BPB Publications. 2. Fundamentals of Computers –Reema Thareja, Oxford University Press India.

II SEMESTER **B.C.A. (HONORS)** **Time:2hrs**

OFFICE AUTOMATION TOOLS

List of Experiments

1. Design a visiting card for managing director of a company as per the following specification.

   o Sizeofvisitingcardis3½×2

   o Name of the company with big font

   o Phone number, Fax number and E-mail address with appropriate symbols. o Office and Residence addresses separated by new line

2. Create a table with following columns and display the result in separate cells for the following

   o Emp Name, Basic pay, DA, HRA, Total salary.

   o Sort all the employees in ascending order with the name as the key

   o Calculate the total salary of the employee

   o Calculate the Grand total salary of the employee

   o Find highest salary and

   o Find lowest salary

3)Prepare an advertisement to company requiring software professional with the following

   o Attractive page border

   o Design the name of the company using WordArt

   o Use at least one clipart.

   o Give details of the company(use bullets etc.)

   o Give details of the Vacancies in each category of employee's(Business manager, Software engineers, System administrators, Programmers, Data entry operators) qualification required.

4)Create a letterhead of a company with the following specifications o Name of the company on the top of the page 2 with big font and good style o Phone no, Faxno and E-mail address with symbols.

   o Main products manufactured by the company

   o Slogans if any should be specified in bold at the bottom

5)Create two pages of curriculum vitae of a graduate with the following specifications of Table to show qualifications with proper headings

   o Appropriate left and right margins

   o Format ½page using two-column approach about yourself

   o Name on each page at the top right side

   o Page no. in the footer on the right side.

6)Write a macro format document as below

o Line spacing“2”(double)

· Paragraph indent of 0.1

· Justification formatting style

· Arial font and Bold of 14pt-size

7) Create a letter as the main document and create 10 records for the 10 persons Use mail merge to create letter for selected persons among 10.

8) Create an electronic spread sheet in which you enter the following decimal numbers and convert the number to octal, Hexadecimal and binary numbers and vice-versa.

DecimalNumbers:35,68,95,78,165,225,355,375,465

BinaryNumbers:101,1101,11101,11111,10001,11101111

9) Calculate the net pay of the employees following the conditions below.

	A	B	C	D	E	F	G	H	I
1	Employee Number	Employee Name	Basic pay	DA	HRA	GPF	Gross Pay	Income tax	Net pay
2		name							

➢ DA:- 16% of the basic pay if Basic pay is greater than 20000 or else 44%. ➢ HRA:- 15 % of the Basic pay subject to maximum of Rs.4000.

➢ GPF: -10% of the basic pay.

➢ INCOME TAX:-10% of basic If Basic pay is greater than20000.

➢ Find who is getting highest salary & who is get lowest salary?

10) The ABC Company shows the sales of different product For5years.CreateBARGraph, 3D and Pie chart for the following.

A	B	C	D	E	F
S.No.	Year	Pro1	Pro2	Pro3	Pro4
1	1989	1000	800	900	1000
2	1990	800	80	500	900
3	1991	120	190	400	800

		0			
4	1992	400	200	300	1000
5	1993	1800	400	400	1200

11) Create a suitable examination database and find the sum of the marks(total) of each student and respective, class secured by the student.

- ✓ Pass – if marks in each subject >= 35
- ✓ Distinction- if average >= 75
- ✓ First class - if average >=60 but <75
- ✓ Second class – if average >=50 but l<60
- ✓ Third class – if average >=35 but <50
- ✓ Fail: if marks in any subject <35

12) Enter the following data in to the sheet.

Name	Department	Salary
Anusha	Accounts	12000
Rani	Engineering	24000
Lakshmi	Accounts	9000
Purnima	Marketing	20000
Bindu	Accounts	4500
Tejaswi	Accounts	11000
Swetha	Engineering	15000
Saroja	Marketing	45000
Sunitha	Accounts	5600
Sandhya	Engineering	24000
Harika	Marketing	8000

➢ Extract records for department in Accounts and Salary>10000 ➢ Sort the data by salary with the department using “sort commands”.
➢ Calculate total salary for each department using Subtotals

13) Enter the following data into the sheet.

	Raju	Rani	Mark	Rosy	Ismail	Reshma
English	76	89	43	51	76	87
2ndLang	55	85	78	61	47	33
Maths	65	82	34	58	52	65
Computers	45	91	56	72	49	56
Human Values	51	84	54	64	32	64

Apply the conditional formatting for marks

· 35 below Red

· 35 to 50 Blue

· 51 to 70 Green

· 71 to 100 Yellow

14) Create a presentation using templates.

15) Create a Custom layout or Slide Master for professional presentation.

16) Create a presentation with slide transitions and animation effects.

17) Create a table in PPT and apply graphical representation

ST.JOSEPH'S COLLEGE FOR WOMEN (Autonomous), Visakhapatnam

II SEMESTER B.C.A. (HONORS) Time: 3Hrs/Week

PROGRAMMING IN C Max.Marks:100

Course Objectives:

- Provides knowledge on Algorithms, Flow charts and basic programming language.
- Provides complete knowledge of C language.
- Helps to develop logics which will help them to create programs and applications in C.
- Learning the basic programming constructs, they can easily switch over to any other languages in the future.

Course Outcomes:

Upon successful completion of this course, students will be able to-

1. Understand the basic terminology used in computer programming and Write, compile and debug programs in C language.(L2)
2. Analyze and develop a solution to a given problem with suitable control structures.(L4)
3. Develop and implement C programs that utilize types of arrays for various operations and manipulate strings using built-in functions.(L3)
4. Design and implement C programs that effectively utilize pointers for dynamic memory management and derived data types.(L6)
5. Apply file handling operations in C.(L3)

UNIT - I:

Introduction to Algorithms and Programming Languages: Algorithm - Key features of Algorithms - examples of Algorithms, Flow Charts– Pseudo code, Programming Languages – Generation of Programming Languages – Structured Programming Language.

Introduction to C: Introduction – 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.

Case Study:

Enter any alphabet and display whether it is a vowel or a consonant.

UNIT - II:

Control Structures and Functions: Decision Control and Looping Statements: Introduction to Decision Control Statements, Conditional Branching Statements, Iterative Statements, Nested Loops, Break and Continue Statement – Go to Statement. **Functions:** Introduction, Using functions – Function declaration/ prototype – Function definition, Function call – Return statement – Passing parameters, Scope of variables, Storage Classes, Recursive functions.

Case Study:

Print the first 10 natural numbers. (using while, do-while, for loop , break, continue.)

UNIT - III:

Arrays: Introduction, Declaration of Arrays, accessing elements of the Array – Storing Values in Array, Calculating the length of the Array, Operations that can be performed on Array, Passing one dimensional array to function. Two dimensional Arrays, accessing two dimensional arrays, Passing two dimensional arrays to functions.

Strings: Introduction, String Operations using String functions.

Case Study:

Searching for an element in an array.

Disadvantages of an array.

UNIT - IV:

Pointers, Structures and Unions: Pointers: Understanding Computer Memory – Introduction to Pointers, Declaring Pointer Variable, Pointer Expressions and Pointer Arithmetic – Null Pointers, Passing Arguments to Functions using Pointer, Pointer and Arrays – Passing Array to Function, Memory Allocation in C Programs, Memory Usage –Dynamic Memory Allocation, Drawbacks of Pointers.

Structures: Introduction to structures, Nested Structures. Union, and Enumerated Data Types: Introduction to Union– accessing union elements, Enumerated Data Types.

Case Study:

Difference between Arrays, structures & unions

UNIT – V:

File Handling: Files: Introduction to Files, Using Files in C, Reading Data from Files, Writing Data from Files, Detecting the End-of-file, Error Handling during File Operations.

Case Study:

Write a program to read a text file, convert all the lowercase characters into upper case

and rewrite the uppercase characters in the file.

PRESCRIBED TEXT BOOKS:

Computer Fundamentals and Programming in C by REEMA THAREJA from OXFORD

UNIVERSITY PRESS

REFERENCE BOOKS:

1. E Balagurusamy, COMPUTING FUNDAMENTALS & C

PROGRAMMING – Tata McGraw-Hill, Second Reprint 2008, ISBN

978-0-07-066909-3.

2. Ashok N Kamthane: Programming with ANSI and Turbo C, Pearson Edition Publ, 2002.

3. Henry Mullish&HuubertL.Cooper: The Sprit of C, Jaico Pub, House,1996.

4. Teach your C Skills-Kanithker

ST.JOSEPH'S COLLEGE FOR WOMEN (Autonomous), Visakhapatnam

II SEMESTER B.C.A. (HONORS) Time:2hrs/Week

PROGRAMMING IN C

List of Experiments

1. Write a C program to calculate the expression: ((a*b)/c)+(a+b-c).

2. Write a C program to calculate (a+b+c)3.

3. Write a C program to check whether the given number is Prime or Not.

4. Write a C program to find the sum of individual digits of a given number.

5. Program to convert Hours into seconds.

6. Write a C program to generate all the prime numbers between 1 and n, where n is a value supplied by the user.

7. Write a program to check whether the given number is Palindrome or Not.

8. Write a C program to check whether a given 3-digit number is an Armstrong number or not.

9. Write a C program to print the numbers in triangular form.

1

1 2

1 2 3

1 2 3 4

10. Program to display the number of days in a given month using Switch – Case.

11. Write a C program to perform the following:

I. Addition of two matrices.

II. Multiplication of two matrices.

12. Write a C program to determine if the given string is a palindrome or not.

13. Write a C program to find the factorial of a given integer using a recursive function.

14. Write a C program to concatenate two strings using pointers.

15. Write a C program to find the length of a string using pointers.

16. Program to display Student Details using Structures.

17. Write a C program to

I. Write data into a File.

II. Read data from a File.