

SRI VENKATESWARA UNIVERSITY

BCA (General) – W.E.F. 2023-24

SEMESTER – II

Sl. No.	Course	Name of the Subject	Total Marks	Internal Exam	Sem · End Exam	Teaching Hours	Credits
1.	First Language	English	100	25	75	4	3
2.	Second Language	(Telugu / Hindi / Sanskrit / Tamil / Urdu)	100	25	75	4	3
3.	Skill Enhancement Course-1		50	---	50	2	2
4.	Skill Enhancement Course-2		50	---	50	2	2
5.	Major - Course 3	Office Automation Tools	100	25	75	3	3
6.	Major - Course 3	Office Automation Tools Practical Course	50	---	50	2	1
7.	Major - Course 4	Programming in C	100	25	75	3	3
8.	Major - Course 4	Programming in C Practical course	50	---	50	2	1
9.	Minor		100	25	75	3	3
10.	Courses with Practicals		50	---	50	2	1

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SEMESTER – II

(MAJOR)

Course Structure

w.e.f. Academic Year 2023-24

Year	Semester	Paper	Title of the Course	No. of Hrs./ Week	No. of Credits
1	II	3	Office Automation Tools	3	3
			Office Automation Tools Practical Course	2	1
		4	Programming in C	3	3
			Programming in C Practical Course	2	1

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SEMESTER – II

COURSE 3: OFFICE AUTOMATION TOOLS

(w.e.f. 2023-24)

THEORY

Credits: 3

3 hrs/week

Course Objectives:

The objective of this paper is to help students to acquire knowledge on the environment of GUI in Ms-Word and its features. To introduce the fundamentals concepts of using Ms-Word and its features to make it more useful and provide hands-on use of Word, Excel and PowerPoint.

Learning Outcomes:

The students will be able:

- Understand concept of Word Processor and use its features.
- To use the advanced features of Ms-Word to make day to day usage easier.
- To work comfortably with Ms-Excel Environment.
- To create work sheets and user advanced features of Excel.
- To create make presentations and inserting multimedia in them.

Unit 1: Introduction to MS Office & MS Word: MS-Word: Features of MS-Word, MS-Word Window components, Customize the Quick Access Tool Bar, working with formatted text, Shortcut keys(navigational, selecting text), typing modes : Insert/overwrite mode.

Formatting (font, paragraph, page) and editing(cut, copy, paste, find, replace, go to(F5)), Using format painter, Header & footer, proofing text (Spell-check, 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 2: MS Word Advanced features: Inserting various objects (like pictures from various sources, shapes, textbox, symbols, equations), Hyperlinks, Tables : various operations on tables (like creating table, inserting/deleting/merging of rows/columns/cells) Mail Merge, Macros: Purpose – Creating & running a Macro

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 Time Table of your class using tables.

Unit 3: Introduction to MS Excel & Its features: MS-Excel: Excel Features, components of excel window, Spreadsheets/worksheet, workbook, creating, saving & editing a workbook, Renaming sheet, cell entries (numbers, labels, and formulas), cell and number formatting, inserting/deleting rows/columns, operators(arithmetic, relational, etc.), using formulas.

Case Study:

1. Create a worksheet with your class marks displaying total, average.

Unit 4: Ms-Excel Advanced Features: Functions and its parts, Some useful Functions in Excel (text, logical, mathematical, statistical, etc),Cell referencing (Relative, Absolute, Mixed), sorting and filtering, auto fill, fill series, Introduction to charts: types of charts, creation of charts, parts of charts.

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 5: Ms-PowerPoint and its Applications: MS-Power Point: Features of Power Point, Uses, components of power point window, designing slides, slide layouts, customizing slides through slide master, changing color scheme, changing background and shading, adding header and footer, Inserting picture, shapes, charts, audio, video into slide. adding transition and animations, Working in slide sorter view(deleting, duplicating, rearranging slides), slide show,

Case Study:

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

Text Books:

1. Computer Fundamentals–Pradeep.K.Sinha:BPBPublications.
2. Fundamentals of Computers -ReemaThareja, Oxford University Press India

Reference Books:

1. Fundamentals of Computer – V .Rajaraman, Prentice Hall of India.
2. Introduction to Computers–Peter Norton McGraw-Hill.

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COURSE 3: OFFICE AUTOMATION TOOLS

Practical

Credits: 1

2 hrs/week

LIST OF SUGGESTED EXPERIMENTS

- 1) Design a visiting card for the Managing Director of a company as per the following specification.
 - o Size of visiting card is 3½×2
 - o Name of the company with big font
 - o Phone number, Fax number and E-mail address with appropriate symbols.
 - o Office and Residence address separated by a 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

- 3) Prepare an advertisement to a 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 letter having following specifications
 - o Name of the company on the top of the page 2 with big font and good style
 - o Phone no, Fax no and E-mail address with symbols.
 - o Main products manufactured by the company
 - o Slogans if any should be specify in bold at the bottom

- 5) Create two pages of curriculum vitae of a graduate with the following specifications
 - o Table to show qualifications with proper headings
 - o Appropriate left and right margins
 - o Format ½ page 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 documents below
 - 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) Calculate the net pay of the employees following the conditions below.

	A	B	C	D	E	F	G	H	I
Sl. no	Employee name	Employee number	Basic Pay	DA	HRA	GPF	Gross Pay	Income Tax	Net Pay

DA: -56% of the basic pay if Basic Pay Greater Than 20000 or else 44%.

HRA: -15% of the Basic pay subject to maximum Rs.4000.

GPF: -10% of basic pay.

INCOMETAX: -10% of basic if Basic pay is greater than 20000.

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

10) The ABC Company shows the sales of different products for 5 years. Create BAR Graph, 3D and Pie chart for the following.

A	B	C	D	E	F
S.No.	Year	Pro1	Pro2	Pro3	Pro4
1	1989	1000	800	90	1000
2	1990	800	80	050	900
3	1991	1200	190	040	800
4	1992	400	200	030	1000
5	1993	1800	400	040	1200

11) Create a suitable examination data base 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 less than 60

Third class: if average ≥ 35 but less than 50

Fail: if marks in any subject < 35

12) Enter the following data in to 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

13) Create a presentation using templates.

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

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

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SEMESTER – II

MODEL QUESTION PAPER

COURSE 3: OFFICE AUTOMATION TOOLS

(w.e.f. 2023-24)

Time :3Hrs

Max Marks 75

SECTION - A

Answer any Five of the following

5 X 3= 15 Marks

1. Short answer question from Unit-1
2. Short answer question from Unit-1
3. Short answer question from Unit-2
4. Short answer question from Unit-2
5. Short answer question from Unit-3
6. Short answer question from Unit-3
7. Short answer question from Unit-4
8. Short answer question from Unit-4
9. Short answer question from Unit-5
10. Short answer question from Unit-5

SECTION - B

Answer any Five of the following

5 X 12= 60 Marks

11. Long answer question from Unit-1
12. Long answer question from Unit-1
13. Long answer question from Unit-2
14. Long answer question from Unit-2
15. Long answer question from Unit-3
16. Long answer question from Unit-3
17. Long answer question from Unit-4
18. Long answer question from Unit-4
19. Long answer question from Unit-5
20. Long answer question from Unit-5

Note: The question paper setter is requested to set question paper based on a model question paper and ensure coverage across all units equally.

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SEMESTER – II

COURSE 4. PROGRAMMING IN C

(w.e.f. 2023-24)

Theory **Credits: 3** **3 hrs/week**

I. Learning Outcomes: Upon Successful Completion of The Course, A Student Will Be Able to:

1. Understand the evolution and functionality of a Digital Computer.
2. Apply logical skills to analyse a given problem
3. Develop an algorithm for solving a given problem.
4. Understand “C” language constructs like Iterative statements, Array processing, Pointers, etc.
5. Apply “C” language constructs to the algorithms to write a “C” language program.

II Syllabus

UNIT I

Introduction to Algorithms and Programming Languages: Algorithm – Key features of Algorithms, Flow Charts, Programming Languages – Generations of Programming Languages – Programming methodologies(paradigms) -

Introduction to C: Introduction– features of C – Structure of C Program – Writing the first C Program – Files used in C Program – Compiling and Executing C Programs.

UNIT II

Programming Constructs: Tokens – Using Comments – Basic Data Types in C – Variables – I/O Statements in C - Operators in C- Programming Examples.

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

UNIT III

Arrays: Introduction – Declaration of Arrays – Accessing elements of the Array – Storing Values in Array– Operations on Arrays – one dimensional, two dimensional and multidimensional arrays.

Strings: Declaring and Initializing string variables, character and string handling functions.

UNIT IV

Functions: Introduction – Function declaration/ prototype – Function definition – function call – return statement – Categories of functions - Recursion - Parameter Passing techniques - Scope of variables – Storage Classes.

Pointers: Introduction to Pointers – declaring and initializing pointer Variables – accessing values using pointers - Pointer Arithmetic – Dynamic Memory Allocation.

UNIT V

Structures and Unions: Introduction – Structure definition - accessing structure members – Array of Structures - union definition – difference between structures and unions, Enumerated Data types.

Files: Introduction to Files – Using Files in C – Reading Data from Files – Writing Data to Files – Detecting the End-of-file – Command Line Arguments.

III. References:

1. E Balagurusamy – Programming in ANSIC – Tata McGraw-Hill publications.
2. Brain W Kernighan and Dennis M Ritchie - The „C“ Programming language” - Pearson publications.
3. Ashok N Kamthane: Programming with ANSI and Turbo C, Pearson Edition Publications.
4. YashavantKanetkar - Let Us „C“ – BPB Publications.

IV. Recommended Co-Curricular Activities:

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

A. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity))
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))
4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity)

B. General

1. Group Discussion
2. Try to solve MCQ“s available online.
3. Others

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4. Programming in C

Practicals

Credits:1

2 hrs/week

List of suggested programs :

1. Write a program to check whether the given number is Armstrong or not.
2. Write a program to find the sum of individual digits of a positive integer.
3. Write a program to generate the first n terms of the Fibonacci sequence.
4. Write a program to find both the largest and smallest number in a list of integer values
5. Write a program to demonstrate reflection of parameters in swapping of two integer values using **Call by Value & Call by Address**
6. Write a program that uses functions to add two matrices.
7. Write a program to calculate factorial of given integer value using recursive functions
8. Write a program for multiplication of two M X N matrices.
9. Write a program to perform various string operations.
10. Write a program to search an element in a given list of values.
11. Write a program to sort a given list of integers in ascending order.
12. Write a program to calculate the salaries of all employees using **Employee (ID, Name, Designation, Basic Pay, DA, HRA, Gross Salary, Deduction, Net Salary)** structure.
 - a. DA is 30 % of Basic Pay
 - b. HRA is 15% of Basic Pay
 - c. Deduction is 10% of (Basic Pay + DA)
 - d. Gross Salary = Basic Pay + DA+ HRA
 - e. Net Salary = Gross Salary - Deduction
13. Write a program to illustrate pointer arithmetic.
14. Write a program to read the data character by character from a file.
15. Write a program to create **Book (ISBN, Title, Author, Price, Pages, Publisher)** structure and store book details in a file and perform the following operations
 - a. Add book details
 - b. Search a book details for a given ISBN and display book details, if available
 - c. Update a book details using ISBN
 - d. Delete book details for a given ISBN and display list of remaining Books

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COURSE 4: PROGRAMMING IN C

(w.e.f. 2023-24)

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