Post Graduate Diploma in Computer Application

DEPARTMENT OF COMPUTER APPLICATION

COURSE CURRICULUM

PART-A: Introduction			
Program: Post Graduate Diploma in Computer Application		**Semester: I**	**Session:2024-2025**
1	Course Code	**CADC-06T**	
2	Course Title	**Fundamentals of Computer**	
3	Course Type	Discipline Specific Course (Theory)	
4	Pre-requisite(if any)	As per Program	
5	Course Learning Outcomes (CLO)	After completing this course, the students will be able to: 1) Study and use of basic concepts and terminology of information technology. 2) Organize files and documents on storage devices. 3) Acquire knowledge of ICT and Internet applications. 4) Develop information technology solutions by evaluating user requirement in advance trends of IT.	
6	Credit Value	4 Credits	(Credit=15 hours-learning & observation)
7	Total Marks	Max. Marks: 100(70+30)	Min Passing Marks : 40

PART- B: CONTENT OF THE COURSE

Total No. of Teaching-learning Periods (01 hour per period)- 60 Periods (60 Hours)

Unit	Topics (Course Contents)	No. of Period
I	**Introduction to Computers:** Computer system: characteristics and capabilities. Computer Hardware and Software: Block Diagram of a Computer, Different Data Processing: Data, Data Processing System, Storing Data, Processing Data. Types of Computers: Analog, Digital, Hybrid, General and Special Purpose Computers. Generation of Computers	15
II	**Computer Peripherals:** Introduction to Input Devices: Categorizing Input Hardware, Keyboard, Direct Entry - Card Readers, Scanning Devices - O.M.R., Character Readers, Thumb Scanner, MICR, Smart Cards, Voice Input Devices, Pointing Devices - Mouse, Light Pen, Touch Screen. Computer Output: Output Fundamentals, Hardcopy Output Devices, Impact Printers, Non-Impact Printers, Plotters, Computer output Microfilm/Microfiche (COM) systems, Softcopy Output.	15
III	**Basic Components & Storage:** Central Processing Unit: The Microprocessor, control unit, A.L.U., Registers, Buses, Main Memory, Main Memory (RAM) for microcomputers, Read Only Memory(ROM). Storage Devices: Storage Fundamentals, Primary and Secondary Storage, Data Storage and Retrieval Methods - Sequential, Direct & Indexed Sequential, Tape Storage and Retrieval Methods Tape storage Devices, characteristics and limitations, Direct access Storage and Microcomputers - Hard Disks, Disk Cartridges, Direct Access Storage Devices for large Computer systems, Mass storage systems and Optical Disks, CD ROM.	15
IV	**Computer Software & Languages** System Software: System software Vs. Application Software, Types of System	15

	Software, Introduction and Types of Operating Systems. Boot Loader, Diagnostic Programs, BIOS, Utility Programs. Application Software: Microcomputer Software, Interacting with the System, Trends in PC software, Types of Application Software, Difference between Program and Packages. Computer Languages: Definition, Generations of computer languages, Types of Languages, Language Processors: Assembler, Interpreter, Compiler. **Operating System and Linux:** Introduction, Uses of OS, Functions of OS, Booting process, Types of Reboot, Booting from different OS, Types of OS, DOS, Windows, Linux Open source Software concept and evolution of Linux; Features of Multi-User Operating System; Structure of Linux OS; Security Features of Linux, File System, Directory Structure and related commands. Linux Editors & editor commands, Linux commands cd, md, rm, mv, cp, Is, cat, find, grep.	
Keywords	Information Technology(IT), Operating System, Software.	

Name and Signature of Convener & Member of BoS:

Part - C : Learning Resources

Text Books, Reference Books, Others

Text Books Recommended-

- Computer Fundamentals, P.K. Sinha, BPB Publication, Sixth Edition.
- Fundamentals of Information Technology, Chetan Shrivastava, Kalyan Publishers.
- Computer Fundamentals and Office Automation, Dr. Santosh Kumar Miri, Iterative International Publisher IIP.
- Computer Fundamentals Architecture and Organization, B. Ram, New Age International Publishers, Fifth Edition.
- Fundamentals of Computers, V. Rajaraman, PHI Sixth Edition.

Reference Books Recommended:

- Introduction to Information Technology, V. Rajaraman, PHI publication.
- Fundamental of IT, Leon and Leon, Leon Tec world.
- Introduction to Information Technology, Aksoy and Denardis, Cengage learning.
- Computers Today, Suresh K. Basandra, Galgotia Publications.
- Information Technology The breaking wave, Dennis P.Curtin, Kim Foley, Kunai Sen and Cathleen Morin, TMH.

E-resources:

1. Introduction to Computer Fundamental from W3school:
https://www.w3schools.blog/computer-fundamentals-tutorial

2.Fundamentals of Computers & Information Technology (in Hindi):
https://www.mcu.ac.in/wp-content/uploads/2020/04/1PGDCA1-Unit-1-Fundamentals-of-Computers-Information-Technology.pdf +

3.Fundamentals of Computers & Information Technology (in Hindi):

https://hte.rajasthan.gov.in/dept/dte/board of technical education, rajasthan/government_polyte chnic college hanumangarh/uploads/doc/fundamental-final-rkd.pdf.

4.Information and Computers Technology: https://cbseacademic.nic.in/web_material/doc/2014/11 ICT-IX.pdf.pdf.

PART -D:AssessmentandEvaluation -Theory		
Suggested Continuous Evaluation Methods: Maximum Marks: **100 Marks** Continuous Internal Assessment(CIA): **30 Marks** End Semester Exam (ESE): **70 Marks**		
Continuous Internal Assessment (CIA): (By CourseTeacher)	Internal Test / Quiz-(2): **20 +20** Assignment / Seminar - **10** Total Marks - **30**	Better marks out of the two Test / Quiz **+** obtained marks in Assignment shall be considered against **30** Marks
End Semester Exam (ESE):	**Two section – A & B** **Section A:** **Q1**. Objective – **10 x1**= **10** Mark; **Q2**. Short answer type- **5x4** =**20Marks** **Section B:** Descriptive answer type qts.,**1 out of 2** from each unit-**4x10**=**40 Marks**	

Name and Signature of Convener & Members of BoS:

Post Graduate Diploma in Computer Application

DEPARTMENT OF COMPUTER APPLICATION

COURSE CURRICULUM

PART-A: Introduction				
Program: Post Graduate Diploma in Computer Application		**Semester: I**		**Session:2024-2025**
1	Course Code	**CADC-07T**		
2	Course Title	**Office Automation**		
3	Course Type	Discipline Specific Course (Theory)		
4	Pre-requisite(if any)	As per Program		
5	Course Learning Outcomes (CLO)	After completing this course, the students will be able to: 1) Students would be able to documents, spreadsheets, make small Presentations and would be acquainted with internet. 2) Student will come to know about database creation. 3) This subject helps in understanding the basics of office automation task**.**		
6	Credit Value	4 Credits	(Credit=15 hours-learning & observation)	
7	Total Marks	Max. Marks: 100(70+30)		Min Passing Marks : 40

PART- B: CONTENT OF THE COURSE

Total No. of Teaching-learning Periods (01 hour per period)- 60 Periods (60 Hours)

Unit	Topics (Course Contents)	No. of Period
I	**Using Office with MS-Word:** Introduction to word processing software and it's features, Creating new document, Saving documents, Opening and printing documents. Home Tab: Setting fonts, Paragraph settings, various styles (Normal, No spacing, Heading1, Heading2, Title, Strong), Find & replace, Format painter, Copy paste and paste special. Insert Tab: Pages, Tables, pictures, clipart, shapes, header & footer, word art, equation and symbols. Page Layout Tab: Page setup, page Background, Paragraph (indent and spacing). Mailing Tab: Create envelops and Labels, Mail merge. Review Tab: Spelling and grammar check, New comment, Protect document, View Tab: Document views, Zoom, Window (New window, Split, Switch window).	15
II	**Working with MS-Excel:** Introducing Excel, Use of excel sheet, Creating new sheet, Saving, Opening, and printing workbook. Home Tab: Font, Alignment, Number, Styles and cells and editing, Conditional Formatting. Insert Tab: Table, Charts (column chart, Pie chart, Bar chart, Line chart) and Texts (header & footer, word art, signature line). Page Layout Tab : Page setup options, Scale to fit(with, height, scale). Formulas Tab : Autosum (sum, average, min, max), logicalIF, and ,or ,not ,true, false), Math &trig (sin, cos, tan, ceiling, floor, fact, mod, log), watch window. Data Tab: Get external data from MS Access, Sort and filter options, Data validation, Group and ungroup. Review Tab: Protect sheet, Protect workbook, Share workbook. View Tab: Page breaks, Page layout, Freezing panes, Split and hide.	15

III	**Working with MS-Power Point:** Introducing power point, Use of power point presentation, Creating new slides saving, Opening and printing. Home Tab: New slide, Layout, Reset, Delete, Setting text direction, Align text, Convert to smart art, Drawing options. Insert Tab: Table, picture, clipart, photo album, smart art, shapes and chart, movie and sound, hyperlink and action, text box, word art, object. Design Tab: Page setup options, slide orientation, applying various themes, selecting background style and formatting it. Animations Tab: Custom animation for entrance, exit and emphasis, applying slide transition, setting transition speed and sound, animation on rehears timing. Slide show &view Tab: Start slid show options, setup options. View tab: Presentation views, colours and window option.	15
IV	**Working with MS-Access:** Front end and back end of application, Introduction to DBMS, Features of DBMS, Creating blank databases, saving it in accdb format. Defining data types in ms access. Home Tab: Datasheet view, design vew, pivot chart view, pivot table view, sort and filter options. Create Tab: Creating tables, Creating reports, Query wizard. External Data Tab: importing data from access and excel sheet, exporting data to excel and ms word. Datasheet Tab: Relationships, Fields and columns options, Data type and formatting options.	15

Keywords	MS –Word, Mail merge,MS-Excel,MS-Powerpoint,MS-Access.

Name and Signature of Convener & Member of BoS:

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- Computers Today, Suresh K. Basandra, Galgotia Publications.
- Information Technology The breaking wave, Dennis P.Curtin, Kim Foley, Kunai Sen and Cathleen Morin, TMH.
- OFFICE 2013 in Simple Steps, Kogent Solution Inc., DremTech Press.
- Access 2010 in Simple Steps by Kogent Learning Solutions Inc

E-resources:

- Introduction to MS-Word from W3school: https://www.w3schools.blog/ms-word-tutorial
- Introduction to MS-Excel from W3school: https://www.w3schools.com/excel/excel_introduction.php
- Introduction to MS-PowerPoint from W3school: https://www.w3schools.blog/powerpoint-tutorial
- Introduction to MS-Access from W3school: https://www.w3schools.com/sql/sql ref msaccess.asp
- Microsoft Office (in Hindi): https://www.scribd.com/document/534988849/9-Microsoft-office-in-hindi-www-GkNotesPDF- com.
- MS-OFFICE: https://www.rgyesm.org/uploads/books/MICROSOFT-OFFICE-BOOK.pdf
- MS-OFFICE: Hindi Notes: https://www.copaguide.com/2020/04/ms-office-topics.html, Microsoft Office Full Crash Course: https://www.youtube.com/watch?v=SH4oyV5AJ6A

PART -D:AssessmentandEvaluation -Theory		
Suggested Continuous Evaluation Methods: Maximum Marks: **100 Marks** Continuous Internal Assessment(CIA): **30 Marks** End Semester Exam (ESE): **70 Marks**		
Continuous Internal Assessment (CIA): (By CourseTeacher)	Internal Test / Quiz-(2): **20 +20** Assignment / Seminar - **10** Total Marks - **30**	Better marks out of the two Test / Quiz **+** obtained marks in Assignment shall be considered against **30** Marks
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Name and Signature of Convener & Members of BoS:

Post Graduate Diploma in Computer Application

DEPARTMENT OF COMPUTER APPLICATION

COURSE CURRICULUM

PART-A: Introduction			
Program **:Post Graduate Diploma in Computer Application**		**Semester: I**	**Session:2024-2025**
1	Course Code	**CADC-07P**	
2	Course Title	**Office Automation**	
3	Course Type	Discipline Specific Course (practical)	
4	Pre-requisite(if any)	As per Syllabus	
5	Course Learning Outcomes (CLO)	After completing this course, the students will be able to: 1) Students would be able to documents, spreadsheets, make small Presentations and would be acquainted with internet. 2) Student will come to know about database creation. 3) This subject helps in understanding the basics of office automation task**.**	
6	Credit Value	4 Credit	(1 Credit=15 hours Laboratory)
7	Total Marks	Max. Marks: 100	Min Passing Marks: 40

Part B: Content of the Course	
Total No. of learning-Training/performance Periods: 60 Periods (60 Hours)	
Module	**Topics (Course contents)**
Lab./ Experiment Contents of Course,	**MS-Word** 1. Prepare a grocery list having four columns (Serial number, the name of the product, quantity and price) for the month of April, 06. ➢ Font specific actions for Title (Grocery List): 14-point Arial font in bold and italics. ➢ The headings of the columns should be in 12-point and bold. ➢ The rest of the document should be in10-point Times New Roman ➢ Leave a gap of 12-points after the title. 2. Create a telephone directory. ➢ The heading should bel 6-point Arial Font in bold. ➢ The rest of the document should use 1O-point font size. ➢ Other headings should usel0-point Courier New Font. ➢ The footer should show the page number as well as the date last updated. 3. Design a time-table form for your college. ➢ The first line should mention the name of the college in 16-point Arial Font and should be bold. ➢ The second line should give the course name/teacher's name and the department in 14-pointArial. ➢ Leave a gap of 12-points. ➢ The rest of the document should use 10-point Times New Roman font. ➢ The footer should contain your specifications as the designer and date of creation. 4. XYZ Publications plan store lease an e-book design dapper your syllabus. Design the First page of the book as per the given specifications. ➢ The title of the book should appear in bold using 20-point Arial font. ➢ The name of the author and his qualifications should be in the center

of the page in 6-point Arial font.

- At the bottom of the document should be the name of the publisher and address in l6-point Times New Roman.
- The details of the offices of the publisher (only location) should appear in the footer.

5. Create the following one page documents.

- Compose a note inviting friends together at your house, including a list of things to bring with them.
- Design a certificate in landscape orientation with a border around the document.
- Design a Garage Sale sign.
- Make an assignment outlining your rules for your bedroom at home, using a numbered list.

6. Create the following documents:

- A newsletter with a headline and 2 columns in portrait orientation, including atleast one image surrounded by text.
- Use a newsletter format to promote upcoming projects or events in your classroom or college.

7. Convert following text to a table, using comma as delimiter Type the following as shown (do not bold).

Color, Style, Item
Blue, A980, Van
Red, X023, Car
Green, YL724, Truck
Name, Age, Sex
Bob, 23, MI
Linda, 46, F
Tom, 29, M

8. Enter the following data into a table given on the next page.

Salesperson	Dolls	Trucks	Puzzles
Kennedy, Sally	1327	1423	1193
White, Pete	1421	3863	2934
Pillar, James	5214	3247	5467
York, George	2190	1278	1928
Banks, Jennifer	1201	2528	1203
Atwater, Kelly	4098	3079	2067
Pillar, James	5214	3247	5467
York, George	2190	1278	1928
Banks, Jennifer	1201	2528	1203
Atwater, Kelly	4098	3079	2067

Add a column Region (values: S, N, N, S, S, S) between the Salesperson and Dols columns to the given table Sort your table data by Region and within Region by Sales person in ascending order:

In this exercise, you will add a new row to your table, place the word Total at the bottom of the Sales person column, and sum the Dolls, Trucks, and Puzzles

9. Wrapping of text around the image.
10. How to install MS-Office in Windows operating system.
11. How to convert word, excel and PowerPoint into pdf & pdf to word.

12. How to merge and split pdf files.

* *

MS-Excel

1. Enter the Following data in Excel Sheet

REGIONAL SALES PROJECTION						
State	Qtr1	Qtr2	Qtr3	Qtr4	Qtr Total	Rate amount
Delhi	2020	2400	2100	3000	15	
Punjab	1100	1300	1500	1400	20	
U.P.	3000	3200	2600	2800	17	
Haryana	1800	2000	2200	2700	15	
Rajasthan	2100	2000	1800	2200	20	
Total						
Average						

a. Apply Formatting as follow:
    Title in TIMES NEW ROMAN
    FontSize-14
    Remaining text-ARIAL, FontSize-10
    State name and Qtr. Heading Bold, Italic with Gray Fill Color.
    Numbers in two decimal places.
    Qtr. Heading in center Alignment.
    Apply Border to whole data.

b. Calculate State and Qtr. Total

c. Calculate Average for each quarter

d. Calculate Amount=Rate*Total.

2. Given the following worksheet

	A	B	C	D
1	Roll No.	Name	Marks	Grade
2	1001	Sachin	99	
3	1002	Sahwag	65	
4	1003	Rahul	41	
5	1004	Sourav	89	
6	1005	Harbhajan	56	

Calculate the grade of these students on the basis of following guidelines:

If Marks Then Grade
    >=80 A+
    >= 60 and <80
    >= 50 and <60
    <50

3. Given the following worksheet

	A	B	C	D	E	F	G
1	Salesman	Sales in (Rs.)					
2	No.	Qtr1	Qtr2	Qtr3	Qtr4	Total	Commission
3	S001	5000	8500	12000	9000		
4	S002	7000	4000	7500	11000		
5	S003	4000	9000	6500	8200		
6	S004	5500	6900	4500	10500		
7	S005	7400	8500	9200	8200		
8	S006	5300	7600	9800	6100		

Calculate the commission earned by the salesman on the basis of following Candidates:

If Total Sales	Then Commission
<20000	0% of sales
> 20000 and <25000	4% of sales
> 25000 and <30000	5.5%of sales
> 30000 and< 35000	8%of sales
>=35000	11%of sales

The total sales are the sum of sales of all the four quarters.

4. Company XYZ Ltd. pays a monthly salary to its employees who consist of basic salary, allowances & deductions. The details of allowances and deductions are as follows:

- HRA Dependent on Basic
  - 30% of Basic if Basic<=1000
  - 25% of Basic if Basic>1000 & Basic<=3000
  - 20% of Basic if Basic>3000
  - DA Fixed for all employees, 30% of Basic
- Conveyance Allowance (CA)
  - Rs.50/- if Basic is <=1000
  - Rs.75/- if Basic >1000 & Basic<=2000
  - Rs. 100 if Basic>2000
- Entertainment Allowance (EA)
  - NIL if Basic is<=1000
  - Rs.100/-if Basic > 1000
  - Deductions
- Provident Fund
  - 6% of Basic
- Group Insurance Premium
  - Rs.40/-if Basic is <=1500
  - Rs.60/-if Basic > 1500 & Basic<=3000
  - Rs.80/-if Basic>3000
  - Calculate the following:
  - Gross Salary=Basic +HRA+ DA+ CA+ EA
  - Total Deduction=Provident Fund + Group Insurance Premium
  - Net Salary=Gross Salary-Total Deduction

5. Create Payment Table for a fixed Principal amount, variable rate of interests and time in the form at below:

No. of Instalments	5%	6%	7%	8%	9%
3	XX	XX	XX	XX	XX
4	XX	XX	XX	XX	XX

5	XX	XX	XX	XX	XX
6	XX	XX	XX	XX	XX

6. Use an array formula to calculate Simple Interest for given principal amounts given the rate of Interest and time

Rate of Interest	8%
Time	5Years
Principal	Simple Interest
1000	?
18000	?
5200	?

7. The following table gives a year wise sale figure of five salesmen in Rs.

Salesman	2019	2020	2021	2022
S1	10000	12000	20000	50000
S2	15000	18000	50000	60000
S3	20000	22000	70000	70000
S4	30000	30000	100000	80000
S5	40000	45000	125000	90000

a. Calculate total sale year wise.
b. Calculate the net sale made by each salesman
c. Calculate the maximum sale made by the salesman
d. Calculate the commission for each salesman under the condition.

- If total sales > 4, 00,000 give 5% commission on total sale made by the salesman.
- Otherwise give 2% commission.

e. Draw a bar graph representing the sale made by each salesman.
f. Draw a pie graph representing the sale made by a salesman in 2000.
8. Generate 25 random numbers between 0 & 100 and find their sum, average and count. How many no. are in the range 50-60.
* *

MS-Power Point

1. Do the following task:

- Start a new blank presentation
- Your first Slide is going to be a Title Slide
- Write the Text as in the preview below:
  - Lighthouse Co Ltd
  - Make the Font of "Lighthouse" Arial Black and size 88
- Insert a second slide this should be with a layout of Bulleted List
- Write the Text as in preview below
- [Title]: Lighthouse Co Ltd
- [Body]:

i. Mission Statement
ii. Company Objectives
iii. Management Team

iv. Employees
v. Sales

Make the Font Color of the Points to Green
Insert a third slide that should be an Organization Chart.
Include the following people in the chart:

a. David Brent, General Manager
b. Tim Canterbury, Head of Sales
c. Gareth Keenan, Assistant to the General Manager
d. Dawn Tinsley, Human Resources Manager

Add a fourth slide and this should be a Table Chart.
The chart should look like the following:

New Products	Discontinued Products
Digital Cameras	8mm Cameras
Ultra Slim Video Camera	8x Zoom Video Camera
25" Plasma TVs21"	Black and White TVs
DVD Recorders	Video Players
7.1 Dolby Surround Systems	2 channel stereo systems

Make the titles New Products and Discontinued Products with a shadow effect and centered in the cell. Widen columns to fit Text as above.
The Fifth slide should be a Chart slide. The chart should be a bar chart, and include the following data must be used to form the chart:

	January	February	March	April
TVs	10	15	32	45
DVDs	25	56	55	40
Wifi equipments	35	45	25	30
Video Recorders	20	25	10	15

• Change the colours of the chart so that the series of bars are red, yellow, pink, and
• Add a light coloured background to all slides in the presentation.
• Add also Transition effects between each slide and also different effects for all text and pictures in the presentation.
• Reverse the order of the second and third slides
• Save the presentation as Light House Ltd.

2. Do the following:
Load your Presentation Application and start a new presentation
• The first slide is a Title Slide. Select the appropriate layout and enter the title:
Annual Food Fair
• Add the subtitle: .A Celebration of Eating
Insert a small, red circle at the bottom right of the title slide.
• Change the font color for the whole title and subtitle to blue, and apply a text shadow effect just to the words Food and Fair
• Insert a second slide to the presentation, selecting a layout appropriate for a series of bullet points, and using the title: The Menu. Enter the following text:

i. Chocolate Desserts
ii. Cakes and Puddings
iii. Roast Meals
iv. Using Pasta Creatively

Change the line spacing for these bullet points to 1.5 lines.
• Increase the font size for the words The Menu in the title.
Add a footer with your name and the text: Food Fair so they both appear on every

slide, and number all the slides. (Make sure the number is not obscured by the red circle on the title slide)

- Insert a third slide, which is to be an organization chart. Use the title Meet the Team. Enter: Maggie Peet, Manager at the top of the chart, and show the following three as reporting to Maggie Peet: Brian Webb, Bookings; Janine Newton, Publicity; Gregg Brown, Accounts

Embolden the text in the title of the third slide, and change the font to Arial.
• Apply a light coloured background to al the slides in the presentation
• On the third slide, insert an image suitable for the topic of food from an image library. Reduce
the size of the image and place it where it will not interfere with text .
• Save the presentation as food fair
• Print the presentation with three slides per page, and close the presentation.
3. Do the followings:
Load your Presentation Application and start a new presentation
• The first slide is a Title Only Slide. Select the appropriate layout and enter the title: Cook Family Cruises.
• Add a small blue rectangle at the top left of this slide.
• Change the font color for the whole title to red, and apply a text shadow effect just to the word Cruises.
• Insert a second slide to the presentation, selecting a layout appropriate for a series of bullet points, and using the title: Our Itinerary. Enter the following text:

a. Canary Islands
b. Mediterranean
c. Greek Islands

• Change the line spacing for these bullet points to 2 lines. Increase the font size of the word Itinerary in the title. Add a footer with your name and the text: Cruise Information so they both appear on every slide, and number all the slides.
• Insert a third slide, which is to be a graph. Use the title Our Market Share. Use the following data to produce a pie chart: Cook 54%; Jackson 28%; Wilson 12%; Bennett 5 %
Embolden the text in the title of the third slide, and change the font to Arial.
• Apply a different background to each slide in the presentation.
• On the third slide, insert an image suitable for the topic of holidays from an image library. Reduce the size of the image and place it where it will not interfere with
• Add a 4-slide containing nothing but the text: Travel with us for less!!
• Save the presentation as a holiday.
• Print the presentation with 4 slides per page, and close the presentation.
4. Creating an animation looks like the leaf is falling in a tree.
5. Creating an animation looks like demolishing a world trade center in America.
* *

MS-Access

1. Create a database named "college" and perform the following tasks:

A. Create a table named "student" having following fields:
Class, Roll no and Name with these Information i.e., Field Name, Data type and
Description
B. Fill at least 5 records.
C. Prepare a query to display all records and Name should be in ascending order.

2. Create the employee table in MS-Access with the referential integrity-foreign key.

Part - C

Learning Resource: Text Books, Reference Books, Others

Text Books Recommended-

- Computer Fundamentals and Office Automation, Dr. Santosh Kumar Miri, Iterative International Publisher IIP.
- Computer Fundamentals Architecture and Organization, B. Ram, New Age International Publishers, Fifth Edition.
- Fundamentals of Computers, V. Rajaraman, PHI Sixth Edition.
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- Information Technology The breaking wave, Dennis P.Curtin, Kim Foley, Kunai Sen and Cathleen Morin, TMH.
- OFFICE 2013 in Simple Steps, Kogent Solution Inc., DremTech Press.
- Access 2010 in Simple Steps by Kogent Learning Solutions Inc

E-resources:

- Introduction to MS-Word from W3school: https://www.w3schools.blog/ms-word-tutorial
- Introduction to MS-Excel from W3school: https://www.w3schools.com/excel/excel_introduction.php
- Introduction to MS-PowerPoint from W3school: https://www.w3schools.blog/powerpoint-tutorial
- Introduction to MS-Access from W3school: https://www.w3schools.com/sql/sql ref msaccess.asp
- Microsoft Office (in Hindi): https://www.scribd.com/document/534988849/9-Microsoft-office-in-hindi-www-GkNotesPDF- com.
- MS-OFFICE: https://www.rgyesm.org/uploads/books/MICROSOFT-OFFICE-BOOK.pdf
- MS-OFFICE: Hindi Notes: https://www.copaguide.com/2020/04/ms-office-topics.html, Microsoft Office Full Crash Course: https://www.youtube.com/watch?v=SH4oyV5AJ6A

PART -D:Assessment andEvaluation -Practical			
Suggested Continuous Evaluation Methods: Maximum Marks: 100 Marks Continuous Internal Assessment(CIA): 30 Marks End Semester Exam (ESE): 70 Marks			
Continuous InternalAssessment (CIA): **(By CourseTeacher)**	Internal Test / Quiz-(2): 20 +20 Assignment / Seminar+ Attendance - 10 Total Marks - 30	Better marks out of the two Test / Quiz + obtained marks in Assignment shall be considered against **30** Marks	
End Semester Exam (ESE):	**Laboratory / Field Skill Performance:** A. practical work - 40 Marks B. Lab record – 10 Marks **C.** Viva-voce - 20 Marks	**On spot Assessment**	Managed by Course teacher as per lab. status

Name and Signature of Convener & Members of CBoS:

Post Graduate Diploma in Computer Application

DEPARTMENT OF COMPUTER APPLICATION

COURSE CURRICULUM

PART-A: Introduction			
Program: Post Graduate Diploma in Computer Application		**Semester: I**	**Session:2024-2025**
1	Course Code	**CADC-08T**	
2	Course Title	**Programming in C and C++**	
3	Course Type	Discipline Specific Course (Theory)	
4	Pre-requisite(if any)	As per Program	
5	Course Learning Outcomes (CLO)	After completing this course, the students will be able to: • Identify situations where computational methods and computers would be useful. • Given a computational problem, identify and abstract the programming task involved. • Develop programming skill and learn how to implement a new software. • Develop programming and logical concepts which helps to build up source code of concern programming language. • Understand the concept of programming like Compilation. Debugging, Executing. Linking and Loading. • Familiar about the structure of C and C++ program.	
6	Credit Value	4 Credits	(Credit=15 hours-learning & observation)
7	Total Marks	Max. Marks: 100(70+30)	Min Passing Marks : 40

PART- B: CONTENT OF THE COURSE

Total No. of Teaching-learning Periods (01 hour per period)- 60 Periods (60 Hours)

Unit	**Topics (Course Contents)**	**No. of Period**
I	**Introduction and Programming Concepts:** Definition of Program, Source file, Object file, Executable file, Header file, Language Translator- Assembler, Interpreter, Compiler, Testing, Debugging, Linker and Loader, Algorithms, Flow Charts, History of C language, Structure of C program, C Tokens: Identifiers. Keywords, Constants. Variables, Operators, Data Types. Control structure Conditional and looping statements. Operator Precedence and Associativity, Array and it's type.	15
II	**Core Concepts of C Programming:** Functions: Standard Library and User defined functions, function prototype, Call by value and Call by reference, recursive functions, String functions, Structure: Declaration and Definition, Nested structure, array within structure. Union: Declaration and Definition, union variables, Pointers: Declaration and Definition, using & and operators, pointer arithmetic, pointer to pointer, Dynamic memory allocation functions: malloc, calloc, realloc, free, File Handling: Basics, File Pointer, various file accessing functions	15

III	**Introduction to Object Oriented Programming:** Concepts, Features of C++, Bottom up Approach, Structure of C++ program, Data types, Class and Objects. Access Specifiers: Private, Public, Protected, I/O statements, Insertion and Extraction operator, Scope resolution operator, Array, this pointer, Constructor :, Default constructor, Copy constructor, Parameterized constructor, Destructor.	15
IV	**Inheritance:** Definition, Concept of base and derived class, Types of Inheritance: Single, Multilevel, Multiple, Hierarchical and Hybrid Inheritance. **Polymorphism:** Definition, Compile time polymorphism: Function overloading, Operator overloading, Run time polymorphism: Virtual Function, pure virtual function. Inline function, friend function, friend class. Exception Handling, Exception basics, try, catch and throws keywords, Template.	15
Keywords	Token, datatype, Operators, Functions, Class, Inheritance, Polymorphism.	

Name and Signature of Convener & Member of BoS:

Part - C : Learning Resources

Text Books, Reference Books, Others

Text Books Recommended-

- Let us C: Yashwant Kanetkar, BPB Publications.
- Programming in ANSI C, E. Balaguruswamy, Tata McGraw Hill
- Let us C++,Y. Kanetkar, B.P.B Publication.
- Programming in C++, E. Balaguruswamy, Tata McGraw Hill.

Reference Books Recommended:

- Program Design, Peter Juliff, PHI Publications
- Programming in C++, Bjarne Stroustrup, Addison-Wesley

E-resources:

- C/C++ different topics from SWAYAM/NPTEL
- Introduction
  https://onlinecourses.nptel.ac.in/noc19_cs38/preview
  https://onlinecourses.nptel.ac.in/noc22_cs103/preview
  https://www.youtube.com/watch?v=KG4hjVDw-p8&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=2
- Constant and Inline Function
  https://www.youtube.com/watch?v=pX6LufLso2M&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=10
- Pointer and Reference
  https://www.youtube.com/watch?v=GtsBZ5e1-cE&list=PLmp4ylk-B4KrM9OEdvPIVFUkU3jNc6D2&index=12
- Function Overloading
  https://www.youtube.com/watch?v=uJGmGAShHeU&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=13
- Operator Overloading

https://www.youtube.com/watch?v=0jpOwe4d-FE&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=17

Dynamic Memory Management
https://www.youtube.com/watch?v= -IkFK2X6qIcO&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=18

1. Class and Object
   https://www.youtube.com/watch?v=wtuks f3vP4&list-PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=24
2. Access Specifiers
   https://www.youtube.com/watch?v=6ki_W7cXdM0&list=PLmp4ylk-B4KrM90EdvPIVFUkU3jNc6D2&index=22
3. Constructor and Destructor
   https://www.youtube.com/watch?v-wtuks_ f3vP4&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=24

- C different topics from W3School https://www.w3schools.com/c/
- C++ different topics from W3School
  https://www.w3schools.com/CPP/default.asp
- C different topics from Javatpoint
  https://www.javatpoint.com/c-programming-language-tutorial
- C++ different topics from Javatpoint
  https://www.javatpoint.com/cpp-tutorial

PART -D:AssessmentandEvaluation -Theory		
Suggested Continuous Evaluation Methods: Maximum Marks: **100 Marks** Continuous Internal Assessment(CIA): **30 Marks** End Semester Exam (ESE): **70 Marks**		
Continuous Internal Assessment (CIA): (By CourseTeacher)	Internal Test / Quiz-(2): **20 +20** Assignment / Seminar - **10** Total Marks - **30**	Better marks out of the two Test / Quiz **+** obtained marks in Assignment shall be considered against **30** Marks
End Semester Exam (ESE):	**Two section – A & B** **Section A:** **Q1**. Objective – **10 x1**= **10** Mark; **Q2**. Short answer type- **5x4** =**20Marks** **Section B:** Descriptive answer type qts.,**1 out of 2** from each unit-**4x10**=**40 Marks**	

Name and Signature of Convener & Members of BoS:

Post Graduate Diploma in Computer Application

DEPARTMENT OF COMPUTER APPLICATION

COURSE CURRICULUM

<table>
<tr><td colspan="5">PART-A: Introduction</td></tr>
<tr><td colspan="2">Program :Post Graduate Diploma in Computer Application</td><td colspan="2">Semester: I</td><td>Session:2024-2025</td></tr>
<tr><td>1</td><td>Course Code</td><td colspan="3">CADC-08P</td></tr>
<tr><td>2</td><td>Course Title</td><td colspan="3">Programming in C and C++</td></tr>
<tr><td>3</td><td>Course Type</td><td colspan="3">Discipline Specific Course (practical)</td></tr>
<tr><td>4</td><td>Pre-requisite(if any)</td><td colspan="3">As per Syllabus</td></tr>
<tr><td>5</td><td>Course Learning Outcomes (CLO)</td><td colspan="3">After completing this course, the students will be able to:
• Identify situations where computational methods and computers would be useful.
• Given a computational problem, identify and abstract the programming task involved.
• Develop programming skill and learn how to implement a new software.
• Develop programming and logical concepts which helps to build up source code of concern programming language.
• Familiar about the structure of C and C++ program.</td></tr>
<tr><td>6</td><td>Credit Value</td><td>4 Credit</td><td colspan="2">(1 Credit=15 hours Laboratory)</td></tr>
<tr><td>7</td><td>Total Marks</td><td colspan="2">Max. Marks: 100</td><td>Min Passing Marks: 40</td></tr>
<tr><td colspan="5">Part B: Content of the Course</td></tr>
<tr><td colspan="5">Total No. of learning-Training/performance Periods: 60 Periods (60 Hours)</td></tr>
<tr><td>Module
Lab./ Experiment Contents of Course,</td><td colspan="4">Note: This is tentative list; the teachers concern can add more program as per requirement.

1. Write a program in C/C++ for addition of two numbers using float data type.
2. Write a program in C/C++ to find the biggest number between two numbers.
3. Write a program in C/C++ to find the factorial value of any entered number using do while loop.
4. Write a program in C/C++ for various arithmetic operations using switch case statements.
5. Write a program in C/C++ for Multiplication of two 3X3 matrix.
6. Write a program in C/C++ to store five books information using structure.
7. Write a program in C/C++ to store six employee information using union.
8. Write a program in C/C++ to calculate simple interest using call by value and call by reference method.
9- Write a program to demonstrate work of malloc(), realloc() and free().
10. Write a program in C++ to find the sum and average of five numbers using class and objects.
11. Write a program in C++ to multiply two numbers using private and public member functions.</td></tr>
</table>

	12. Write a program in C++ to print structure like this using scope resolution operator 1 12 123 1234 12345 13. Write a program in C++ for constructor and Destructor. 14. Write a program in C++ for multiple inheritance. 15. Write a program in C++ for operator overloading. 16. Write a program in C++ for friend class and friend function. 17. Write a program in C++ for virtual function and virtual class. 18. Write a program in C++ for Exception Handling. 19. WAP to display Fibonacci series (i) using recursion, (ii) using iteration 20.WAP to calculate Factorial of a number (1) using recursion, (ii) using iteration 21. WAP to calculate GCD of two numbers (1) with recursion (ii) without recursion.

Part - C

Learning Resource: Text Books, Reference Books, Others

Text Books Recommended-

- Let us C: Yashwant Kanetkar, BPB Publications.
- Programming in ANSI C, E. Balaguruswamy, Tata McGraw Hill
- Let us C++,Y. Kanetkar, B.P.B Publication.
- Programming in C++, E. Balaguruswamy, Tata McGraw Hill.

Reference Books Recommended:

- Program Design, Peter Juliff, PHI Publications
- Programming in C++, Bjarne Stroustrup, Addison-Wesley

E-resources:

- C/C++ different topics from SWAYAM/NPTEL
- Introduction
  https://onlinecourses.nptel.ac.in/noc19_cs38/preview
  https://onlinecourses.nptel.ac.in/noc22_cs103/preview
  https://www.youtube.com/watch?v=KG4hjVDw-p8&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=2
- Constant and Inline Function
  https://www.youtube.com/watch?v=pX6LufLso2M&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=10
- Pointer and Reference
  https://www.youtube.com/watch?v=GtsBZ5e1-cE&list=PLmp4ylk-B4KrM9OEdvPIVFUkU3jNc6D2&index=12

- Function Overloading
  https://www.youtube.com/watch?v=uJGmGAShHeU&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=13
- Operator Overloading
  https://www.youtube.com/watch?v=0jpOwe4d-FE&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=17

Dynamic Memory Management
https://www.youtube.com/watch?v= -IkFK2X6qIcO&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=18

4. Class and Object
   https://www.youtube.com/watch?v=wtuks f3vP4&list-PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=24
5. Access Specifiers
   https://www.youtube.com/watch?v=6ki_W7cXdM0&list=PLmp4ylk-B4KrM90EdvPIVFUkU3jNc6D2&index=22
6. Constructor and Destructor
   https://www.youtube.com/watch?v-wtuks_ f3vP4&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=24

- C different topics from W3School https://www.w3schools.com/c/
- C++ different topics from W3School
  https://www.w3schools.com/CPP/default.asp
- C different topics from Javatpoint
  https://www.javatpoint.com/c-programming-language-tutorial
- C++ different topics from Javatpoint
  https://www.javatpoint.com/cpp-tutorial

PART -D: Assessment and Evaluation -Practical			
Suggested Continuous Evaluation Methods: Maximum Marks: 100 Marks Continuous Internal Assessment(CIA): 30 Marks End Semester Exam (ESE): 70 Marks			
Continuous InternalAssessment (CIA): **(By CourseTeacher)**	Internal Test / Quiz-(2): 20 +20 Assignment / Seminar+ Attendance - 10 Total Marks - 30	Better marks out of the two Test / Quiz + obtained marks in Assignment shall be considered against **30** Marks	
End Semester Exam (ESE):	**Laboratory / Field Skill Performance:** **On spot Assessment** D. practical work - 40 Marks E. Lab record – 10 Marks **F.** Viva-voce - 20 Marks		Managed by Course teacher as per lab. status

Name and Signature of Convener & Members of CBoS:

Diploma in Computer Application

DEPARTMENT OF COMPUTER APPLICATION

COURSE CURRICULUM

PART-A: Introduction			
Program: Diploma in Computer Application		**Semester: I**	**Session:2024-2025**
1	Course Code	**CADC-01T**	
2	Course Title	**Fundamentals of Computer**	
3	Course Type	Discipline Specific Course (Theory)	
4	Pre-requisite(if any)	As per Program	
5	Course Learning Outcomes (CLO)	After completing this course, the students will be able to: 1) Study and use of basic concepts and terminology of information technology. 2) Organize files and documents on storage devices. 3) Acquire knowledge of ICT and Internet applications. 4) Develop information technology solutions by evaluating user requirement in advance trends of IT.	
6	Credit Value	4 Credits	(Credit=15 hours-learning & observation)
7	Total Marks	Max. Marks: 100(70+30)	Min Passing Marks : 40

PART- B: CONTENT OF THE COURSE

Total No. of Teaching-learning Periods (01 hour per period)- 60 Periods (60 Hours)

Unit	**Topics (Course Contents)**	**No. of Period**
I	**Introduction to Computers**: Computer System Characteristics and Capabilities: Speed, Accuracy, Reliability, Memory capability, Repeatability. Computer Hardware and Software, Block Diagram of a Computer. Types of Computers: Analog, Digital, Hybrid General and Special Purpose Computers. Computer Generations: Characteristics of Computer Generations Computer Systems - Micros, Minis & Main-frames. Introduction to a PC: The IBM Personal Computer Types of PC systems PC, XT & AT Pentium PC's.	15
II	**Computer Organization:** Keyboard, Direct Entry - Card Readers, Scanning Devices- O.M.R., Character Readers, MICR, Voice Input Devices, Pointing Devices - Mouse, Light Pen. Storage Devices: Storage Fundamentals-Bits, Bytes, Primary Storage - RAM,ROM, Secondary Storage-Floppy Disks, Hard Disks, Optical Disks, CD/DVD. Computer Output: Output Fundamentals, Hardcopy Output Devices, Impact Printers, Non-Impact Printers, Plotters, Computer output, Softcopy Output Devices, Cathode Ray Tube, Flat Screen Technologies.	15

III	**Operating System:** MS-DOS - Introduction, History and Versions of DOS. Booting Process, System Files and Command.com, Internal DOS Commands - DIR, MD, CD, COPY, DEL, REN, VOL, DATE, TIME, CLS, PATH, TYPE. Files & Directories, Elementary External DOS Commands - CHKDSK, MEM, XCOPY, PRINT, DISKCOPY, DISKCOMP, DOSKEY, HELP, TREE, SYS, LABEL, ATTRIB, Creating a Batch Files, Additional Commands - ECHO, PROMPT, MODE, EDIT, FORMAT, FDISK, BACKUP, RESTORE, MORE, SORT.	15
IV	**Windows:** Windows Concepts, Features, Structures, Desktop, Taskbar, Start Menu, My Computer, Recycle Bin. Accessories: Calculator, Notepad, Paint, WordPad, Character Map. Explorer: Creating folders and other Explorer facilities, Internet Explorer basics, navigating the Web, Control Panel. **Linux:** Open Source Software concept and evolution of Linux, Features of Linux OS, Structure of Linux OS, File System, Directory Structure, Linux editors & Editor commands, Linux.	15

Keywords	Information Technology(IT), Operating System, Software.

Name and Signature of Convener & Member of BoS:

Part - C : Learning Resources

Text Books, Reference Books, Others

Text Books Recommended-

- Computer Fundamentals, P.K. Sinha, BPB Publication, Sixth Edition.
- Fundamentals of Information Technology, Chetan Shrivastava, Kalyan Publishers.
- Computer Fundamentals and Office Automation, Dr. Santosh Kumar Miri, Iterative International Publisher IIP.
- Computer Fundamentals Architecture and Organization, B. Ram, New Age International Publishers, Fifth Edition.
- Fundamentals of Computers, V. Rajaraman, PHI Sixth Edition.

Reference Books Recommended:

- Introduction to Information Technology, V. Rajaraman, PHI publication.
- Fundamental of IT, Leon and Leon, Leon Tec world.
- Introduction to Information Technology, Aksoy and Denardis, Cengage learning.
- Computers Today, Suresh K. Basandra, Galgotia Publications.
- Information Technology The breaking wave, Dennis P.Curtin, Kim Foley, Kunai Sen and Cathleen Morin, TMH.

E-resources:

1. Introduction to Computer Fundamental from W3school:
   https://www.w3schools.blog/computer-fundamentals-tutorial

2.Fundamentals of Computers & Information Technology (in Hindi):
   https://www.mcu.ac.in/wp-content/uploads/2020/04/1PGDCA1-Unit-1-Fundamentals-of-

Computers-Information-Technology.pdf +

3.Fundamentals of Computers & Information Technology (in Hindi): https://hte.rajasthan.gov.in/dept/dte/board of technical education, rajasthan/government_polyte chnic college hanumangarh/uploads/doc/fundamental-final-rkd.pdf.

4.Information and Computers Technology: https://cbseacademic.nic.in/web_material/doc/2014/11 ICT-IX.pdf.pdf.

PART -D:AssessmentandEvaluation -Theory		
Suggested Continuous Evaluation Methods: Maximum Marks: **100 Marks** Continuous Internal Assessment(CIA): **30 Marks** End Semester Exam (ESE): **70 Marks**		
Continuous Internal Assessment (CIA): (By CourseTeacher)	Internal Test / Quiz-(2): **20 +20** Assignment / Seminar - **10** Total Marks - **30**	Better marks out of the two Test / Quiz **+** obtained marks in Assignment shall be considered against **30** Marks
End Semester Exam (ESE):	**Two section – A & B** **Section A:** **Q1**. Objective – **10 x1**= **10** Mark; **Q2**. Short answer type- **5x4** =**20Marks** **Section B:** Descriptive answer type qts.,**1 out of 2** from each unit-**4x10**=**40 Marks**	

Name and Signature of Convener & Members of BoS:

Diploma in Computer Application

DEPARTMENT OF COMPUTER APPLICATION

COURSE CURRICULUM

PART-A: Introduction			
Program: Diploma in Computer Application		**Semester: I**	**Session:2024-2025**
1	Course Code	**CADC-02T**	
2	Course Title	**Office Automation**	
3	Course Type	Discipline Specific Course (Theory)	
4	Pre-requisite(if any)	As per Program	
5	Course Learning Outcomes (CLO)	After completing this course, the students will be able to: 1) Students would be able to documents, spreadsheets, make small Presentations and would be acquainted with internet. 2) Student will come to know about database creation. 3) This subject helps in understanding the basics of office automation task.	
6	Credit Value	4 Credits	(Credit=15 hours-learning & observation)
7	Total Marks	Max. Marks: 100(70+30)	Min Passing Marks : 40

PART- B: CONTENT OF THE COURSE

Total No. of Teaching-learning Periods (01 hour per period)- 60 Periods (60 Hours)

Unit	Topics (Course Contents)	No. of Period
I	**MS-Word:** Creating and editing word documents, formatting documents - aligning documents, indenting paragraphs, changing margin, formatting pages, formatting paragraph, printing labels, working with tables, formatting text in tables, inse ting and deleting cells, rows and columns, use bulleted and numbering, checking s elling and grammar, finding synonyms, working with long documents, working with header and footer, adding page number and foot note, working with graphics, inserting clip art, working with pictures, Word art, creating chart & Graphs, creating flowcharts, working with mail merge, writing the form letter, merging form documents, merging to label, Working with Mailing lists and Data Sources, selecting merge records, creating macros, running macro.	15
II	**Working with MS-Excel:** Introducing Excel, use of excel sheet, saving, opening and printing workbook Apply formats in cell & text, Divide worksheet into pages, setting page layout, adding Header & Footer. Using multiple documents, arranging windows i.e (Cascade, Tiled ,Split, protecting your work, password protection. Working with Functions & Formulas, using absolute reference, referencing cell by name, using cell label, giving name to cell and ranges, working with formulas (mathematical & trigonometric . statistical, date time, most recently used), Working with Excel graphics, creating chart & graphs. Working with lists & database, sorting a database, filtering a database ,using auto filter ,criteria range, calculating total and subtotal, creating pivot table, goal seek, recording & playing macros, deleting and selecting macro location.	15

III	**Presenting with PowerPoint :** Creating presentation, working with slides, different types of slides, setting page layout, selecting background and applying design, adding graphics to slide, adding sound and movie, working with table, creating chart and graph, playing a slide show, slide transition, advancing slides, setting time, rehearsing timing, animating slide, animating objects, running the show, from windows.	15
IV	**Introduction of DBMS through MS-Access:** Introduction to Database, DBMS, RDBMS, Features of Access, Designing Database, Relationship (One to One, One to many, Many to Many), Create table (Design View, Wizard, Datasheet View), Query (Update Query, Delete Query, Selection Query, Cross table Query, Make table Query).	15

Keywords	MS –Word, Mail merge ,MS-Excel, MS-PowerPoint, MS-Access.

Name and Signature of Convener & Member of BoS:

Part - C : Learning Resources

Text Books, Reference Books, Others

Text Books Recommended-

- Computer Fundamentals and Office Automation, Dr. Santosh Kumar Miri, Iterative International Publisher IIP.
- Computer Fundamentals Architecture and Organization, B. Ram, New Age International Publishers, Fifth Edition.
- Fundamentals of Computers, V. Rajaraman, PHI Sixth Edition.
- Computer Fundamentals, P.K. Sinha, BPB Publication, Sixth Edition.

Reference Books Recommended:

- Fundamental of IT, Leon and Leon, Leon Tec world.
- Introduction to Information Technology, Aksoy and Denardis, Cengage learning.
- Computers Today, Suresh K. Basandra, Galgotia Publications.
- Information Technology The breaking wave, Dennis P.Curtin, Kim Foley, Kunai Sen and Cathleen Morin, TMH.
- OFFICE 2013 in Simple Steps, Kogent Solution Inc., DremTech Press.
- Access 2010 in Simple Steps by Kogent Learning Solutions Inc

E-resources:

- Introduction to MS-Word from W3school: https://www.w3schools.blog/ms-word-tutorial
- Introduction to MS-Excel from W3school: https://www.w3schools.com/excel/excel_introduction.php

- Introduction to MS-PowerPoint from W3school: https://www.w3schools.blog/powerpoint-tutorial
- Introduction to MS-Access from W3school: https://www.w3schools.com/sql/sql ref msaccess.asp
- Microsoft Office (in Hindi): https://www.scribd.com/document/534988849/9-Microsoft-office-in-hindi-www-GkNotesPDF- com.
- MS-OFFICE: https://www.rgyesm.org/uploads/books/MICROSOFT-OFFICE-BOOK.pdf
- MS-OFFICE: Hindi Notes: https://www.copaguide.com/2020/04/ms-office-topics.html, Microsoft Office Full Crash Course: https://www.youtube.com/watch?v=SH4oyV5AJ6A

PART -D:AssessmentandEvaluation -Theory		
Suggested Continuous Evaluation Methods: Maximum Marks: **100 Marks** Continuous Internal Assessment(CIA): **30 Marks** End Semester Exam (ESE): **70 Marks**		
Continuous Internal Assessment (CIA): (By CourseTeacher)	Internal Test / Quiz-(2): **20 +20** Assignment / Seminar - **10** Total Marks - **30**	Better marks out of the two Test / Quiz **+** obtained marks in Assignment shall be considered against **30** Marks
End Semester Exam (ESE):	**Two section – A & B** **Section A:** **Q1**. Objective – **10 x1**= **10** Mark; **Q2**. Short answer type- **5x4** =**20Marks** **Section B:** Descriptive answer type qts.,**1 out of 2** from each unit-**4x10**=**40 Marks**	

Name and Signature of Convener & Members of BoS:

Diploma in Computer Application

DEPARTMENT OF COMPUTER APPLICATION

COURSE CURRICULUM

PART-A: Introduction			
Program **:Post Graduate Diploma in Computer Application**		**Semester: I**	**Session:2024-2025**
1	Course Code	**CADC-02P**	
2	Course Title	**Office Automation**	
3	Course Type	Discipline Specific Course (practical)	
4	Pre-requisite(if any)	As per Syllabus	
5	Course Learning Outcomes (CLO)	After completing this course, the students will be able to: 1) Students would be able to documents, spreadsheets, make small Presentations and would be acquainted with internet. 2) Student will come to know about database creation. 3) This subject helps in understanding the basics of office automation task**.**	
6	Credit Value	4 Credit	(1 Credit=15 hours Laboratory)
7	Total Marks	Max. Marks: 100	Min Passing Marks: 40

Part B: Content of the Course

Total No. of learning-Training/performance Periods: 60 Periods (60 Hours)

Module	**Topics (Course contents)**
Lab./ Experiment Contents of Course,	**MS-Word** 1. Prepare a grocery list having four columns (Serial number, the name of the product, quantity and price) for the month of April, 06. ➢ Font specific actions for Title (Grocery List): 14-point Arial font in bold and italics. ➢ The headings of the columns should be in 12-point and bold. ➢ The rest of the document should be in10-point Times New Roman ➢ Leave a gap of 12-points after the title. 2. Create a telephone directory. ➢ The heading should bel 6-point Arial Font in bold. ➢ The rest of the document should use 1O-point font size. ➢ Other headings should usel0-point Courier New Font. ➢ The footer should show the page number as well as the date last updated. 3. Design a time-table form for your college. ➢ The first line should mention the name of the college in 16-point Arial Font and should be bold. ➢ The second line should give the course name/teacher's name and the department in 14-pointArial. ➢ Leave a gap of 12-points. ➢ The rest of the document should use 10-point Times New Roman font. ➢ The footer should contain your specifications as the designer and date of creation. 4. XYZ Publications plan store lease an e-book design dapper your syllabus. Design the First page of the book as per the given specifications.

- The title of the book should appear in bold using 20-point Arial font.
- The name of the author and his qualifications should be in the center of the page in 6-point Arial font.
- At the bottom of the document should be the name of the publisher and address in l6-point Times New Roman.
- The details of the offices of the publisher (only location) should appear in the footer.

5. Create the following one page documents.
   - Compose a note inviting friends together at your house, including a list of things to bring with them.
   - Design a certificate in landscape orientation with a border around the document.
   - Design a Garage Sale sign.
   - Make an assignment outlining your rules for your bedroom at home, using a numbered list.

6. Create the following documents:
   - A newsletter with a headline and 2 columns in portrait orientation, including atleast one image surrounded by text.
   - Use a newsletter format to promote upcoming projects or events in your classroom or college.

7. Convert following text to a table, using comma as delimiter Type the following as shown (do not bold).

Color, Style, Item
Blue, A980, Van
Red, X023, Car
Green, YL724, Truck
Name, Age, Sex
Bob, 23, MI
Linda, 46, F
Tom, 29, M

8. Enter the following data into a table given on the next page.

Salesperson	Dolls	Trucks	Puzzles
Kennedy, Sally	1327	1423	1193
White, Pete	1421	3863	2934
Pillar, James	5214	3247	5467
York, George	2190	1278	1928
Banks, Jennifer	1201	2528	1203
Atwater, Kelly	4098	3079	2067
Pillar, James	5214	3247	5467
York, George	2190	1278	1928
Banks, Jennifer	1201	2528	1203
Atwater, Kelly	4098	3079	2067

Add a column Region (values: S, N, N, S, S, S) between the Salesperson and Dols columns to the given table Sort your table data by Region and within Region by Sales person in ascending order:

In this exercise, you will add a new row to your table, place the word Total at the bottom of the Sales person column, and sum the Dolls, Trucks, and Puzzles

9. Wrapping of text around the image.

10. How to install MS-Office in Windows operating system.
11. How to convert word, excel and PowerPoint into pdf & pdf to word.
12. How to merge and split pdf files.

* *

MS-Excel

1. Enter the Following data in Excel Sheet

REGIONAL SALES PROJECTION						
State	Qtr1	Qtr2	Qtr3	Qtr4	Qtr Total	Rate amount
Delhi	2020	2400	2100	3000	15	
Punjab	1100	1300	1500	1400	20	
U.P.	3000	3200	2600	2800	17	
Haryana	1800	2000	2200	2700	15	
Rajasthan	2100	2000	1800	2200	20	
Total						
Average						

a. Apply Formatting as follow:
Title in TIMES NEW ROMAN
FontSize-14
Remaining text-ARIAL, FontSize-10
State name and Qtr. Heading Bold, Italic with Gray Fill Color.
Numbers in two decimal places.
Qtr. Heading in center Alignment.
Apply Border to whole data.
b. Calculate State and Qtr. Total
c. Calculate Average for each quarter
d. Calculate Amount=Rate*Total.
2. Given the following worksheet

	A	B	C	D
1	Roll No.	Name	Marks	Grade
2	1001	Sachin	99	
3	1002	Sahwag	65	
4	1003	Rahul	41	
5	1004	Sourav	89	
6	1005	Harbhajan	56	

Calculate the grade of these students on the basis of following guidelines:
If Marks Then Grade
>=80 A+
>= 60 and <80
>= 50 and <60

<50

3. Given the following worksheet

	A	B	C	D	E	F	G
1	Salesman	Sales in (Rs.)					
2	No.	Qtr1	Qtr2	Qtr3	Qtr4	Total	Commission
3	S001	5000	8500	12000	9000		
4	S002	7000	4000	7500	11000		
5	S003	4000	9000	6500	8200		
6	S004	5500	6900	4500	10500		
7	S005	7400	8500	9200	8200		
8	S006	5300	7600	9800	6100		

Calculate the commission earned by the salesman on the basis of following Candidates:

If Total Sales	Then Commission
<20000	0% of sales
> 20000 and <25000	4% of sales
> 25000 and <30000	5.5%of sales
> 30000 and< 35000	8%of sales
>=35000	11%of sales

The total sales are the sum of sales of all the four quarters.

4. Company XYZ Ltd. pays a monthly salary to its employees who consist of basic salary, allowances & deductions. The details of allowances and deductions are as follows:

- HRA Dependent on Basic
  - 30% of Basic if Basic<=1000
  - 25% of Basic if Basic>1000 & Basic<=3000
  - 20% of Basic if Basic>3000
  - DA Fixed for all employees, 30% of Basic
- Conveyance Allowance (CA)
  - Rs.50/- if Basic is <=1000
  - Rs.75/- if Basic >1000 & Basic<=2000
  - Rs. 100 if Basic>2000
- Entertainment Allowance (EA)
  - NIL if Basic is<=1000
  - Rs.100/-if Basic > 1000
  - Deductions
- Provident Fund
  - 6% of Basic
- Group Insurance Premium
  - Rs.40/-if Basic is <=1500
  - Rs.60/-if Basic > 1500 & Basic<=3000
  - Rs.80/-if Basic>3000
  - Calculate the following:
  - Gross Salary=Basic +HRA+ DA+ CA+ EA
  - Total Deduction=Provident Fund + Group Insurance Premium
  - Net Salary=Gross Salary-Total Deduction

5. Create Payment Table for a fixed Principal amount, variable rate of interests and time in the form at below:

No. of Instalments	5%	6%	7%	8%	9%

3	XX	XX	XX	XX	XX
4	XX	XX	XX	XX	XX
5	XX	XX	XX	XX	XX
6	XX	XX	XX	XX	XX

6. Use an array formula to calculate Simple Interest for given principal amounts given the rate of Interest and time

Rate of Interest	8%
Time	5Years
Principal	Simple Interest
1000	?
18000	?
5200	?

7. The following table gives a year wise sale figure of five salesmen in Rs.

Salesman	2019	2020	2021	2022
S1	10000	12000	20000	50000
S2	15000	18000	50000	60000
S3	20000	22000	70000	70000
S4	30000	30000	100000	80000
S5	40000	45000	125000	90000

a. Calculate total sale year wise.
b. Calculate the net sale made by each salesman
c. Calculate the maximum sale made by the salesman
d. Calculate the commission for each salesman under the condition.

- If total sales > 4, 00,000 give 5% commission on total sale made by the salesman.
- Otherwise give 2% commission.

e. Draw a bar graph representing the sale made by each salesman.
f. Draw a pie graph representing the sale made by a salesman in 2000.
8. Generate 25 random numbers between 0 & 100 and find their sum, average and count. How many no. are in the range 50-60.
* *

MS-Power Point

1. Do the following task:

- Start a new blank presentation
- Your first Slide is going to be a Title Slide
- Write the Text as in the preview below:
  - Lighthouse Co Ltd
  - Make the Font of "Lighthouse" Arial Black and size 88
- Insert a second slide this should be with a layout of Bulleted List
- Write the Text as in preview below
- [Title]: Lighthouse Co Ltd
- [Body]:

vi. Mission Statement

vii. Company Objectives
viii. Management Team
ix. Employees
x. Sales

Make the Font Color of the Points to Green
Insert a third slide that should be an Organization Chart.
Include the following people in the chart:

a. David Brent, General Manager
b. Tim Canterbury, Head of Sales
c. Gareth Keenan, Assistant to the General Manager
d. Dawn Tinsley, Human Resources Manager

Add a fourth slide and this should be a Table Chart.
The chart should look like the following:

New Products	Discontinued Products
Digital Cameras	8mm Cameras
Ultra Slim Video Camera	8x Zoom Video Camera
25" Plasma TVs21"	Black and White TVs
DVD Recorders	Video Players
7.1 Dolby Surround Systems	2 channel stereo systems

Make the titles New Products and Discontinued Products with a shadow effect and centered in the cell. Widen columns to fit Text as above.
The Fifth slide should be a Chart slide. The chart should be a bar chart, and include the following data must be used to form the chart:

	January	February	March	April
TVs	10	15	32	45
DVDs	25	56	55	40
Wifi equipments	35	45	25	30
Video Recorders	20	25	10	15

• Change the colours of the chart so that the series of bars are red, yellow, pink, and
• Add a light coloured background to all slides in the presentation.
• Add also Transition effects between each slide and also different effects for all text and pictures in the presentation.
• Reverse the order of the second and third slides
• Save the presentation as Light House Ltd.
2. Do the following:
Load your Presentation Application and start a new presentation
• The first slide is a Title Slide. Select the appropriate layout and enter the title:
Annual Food Fair
• Add the subtitle: .A Celebration of Eating
Insert a small, red circle at the bottom right of the title slide.
• Change the font color for the whole title and subtitle to blue, and apply a text shadow effect just to the words Food and Fair
• Insert a second slide to the presentation, selecting a layout appropriate for a series of bullet points, and using the title: The Menu. Enter the following text:

i. Chocolate Desserts
ii. Cakes and Puddings
iii. Roast Meals
iv. Using Pasta Creatively

Change the line spacing for these bullet points to 1.5 lines.

• Increase the font size for the words The Menu in the title.
Add a footer with your name and the text: Food Fair so they both appear on every slide, and number all the slides. (Make sure the number is not obscured by the red circle on the title slide)

- Insert a third slide, which is to be an organization chart. Use the title Meet the Team. Enter: Maggie Peet, Manager at the top of the chart, and show the following three as reporting to Maggie Peet: Brian Webb, Bookings; Janine Newton, Publicity; Gregg Brown, Accounts

Embolden the text in the title of the third slide, and change the font to Arial.
• Apply a light coloured background to al the slides in the presentation
• On the third slide, insert an image suitable for the topic of food from an image library. Reduce
the size of the image and place it where it will not interfere with text .
• Save the presentation as food fair
• Print the presentation with three slides per page, and close the presentation.
3. Do the followings:
Load your Presentation Application and start a new presentation
• The first slide is a Title Only Slide. Select the appropriate layout and enter the title: Cook Family Cruises.
• Add a small blue rectangle at the top left of this slide.
• Change the font color for the whole title to red, and apply a text shadow effect just to the word Cruises.
• Insert a second slide to the presentation, selecting a layout appropriate for a series of bullet points, and using the title: Our Itinerary. Enter the following text:

d. Canary Islands
e. Mediterranean
f. Greek Islands

• Change the line spacing for these bullet points to 2 lines. Increase the font size of the word Itinerary in the title. Add a footer with your name and the text: Cruise Information so they both appear on every slide, and number all the slides.
• Insert a third slide, which is to be a graph. Use the title Our Market Share. Use the following data to produce a pie chart: Cook 54%; Jackson 28%; Wilson 12%; Bennett 5 %
Embolden the text in the title of the third slide, and change the font to Arial.
• Apply a different background to each slide in the presentation.
• On the third slide, insert an image suitable for the topic of holidays from an image library. Reduce the size of the image and place it where it will not interfere with
• Add a 4-slide containing nothing but the text: Travel with us for less!!
• Save the presentation as a holiday.
• Print the presentation with 4 slides per page, and close the presentation.
4. Creating an animation looks like the leaf is falling in a tree.
5. Creating an animation looks like demolishing a world trade center in America.
* *

MS-Access

1. Create a database named "college" and perform the following tasks:
   A. Create a table named "student" having following fields:
   Class, Roll no and Name with these Information i.e., Field Name, Data type and
   Description
   B. Fill at least 5 records.
   C. Prepare a query to display all records and Name should be in ascending order.
2. Create the employee table in MS-Access with the referential integrity-foreign key.

Part - C

Learning Resource: Text Books, Reference Books, Others

Text Books Recommended-

- Computer Fundamentals and Office Automation, Dr. Santosh Kumar Miri, Iterative International Publisher IIP.
- Computer Fundamentals Architecture and Organization, B. Ram, New Age International Publishers, Fifth Edition.
- Fundamentals of Computers, V. Rajaraman, PHI Sixth Edition.
- Computer Fundamentals, P.K. Sinha, BPB Publication, Sixth Edition.

Reference Books Recommended:

- Fundamental of IT, Leon and Leon, Leon Tec world.
- Introduction to Information Technology, Aksoy and Denardis, Cengage learning.
- Computers Today, Suresh K. Basandra, Galgotia Publications.
- Information Technology The breaking wave, Dennis P.Curtin, Kim Foley, Kunai Sen and Cathleen Morin, TMH.
- OFFICE 2013 in Simple Steps, Kogent Solution Inc., DremTech Press.
- Access 2010 in Simple Steps by Kogent Learning Solutions Inc

E-resources:

- Introduction to MS-Word from W3school: https://www.w3schools.blog/ms-word-tutorial
- Introduction to MS-Excel from W3school: https://www.w3schools.com/excel/excel_introduction.php
- Introduction to MS-PowerPoint from W3school: https://www.w3schools.blog/powerpoint-tutorial
- Introduction to MS-Access from W3school: https://www.w3schools.com/sql/sql ref msaccess.asp
- Microsoft Office (in Hindi): https://www.scribd.com/document/534988849/9-Microsoft-office-in-hindi-www-GkNotesPDF- com.
- MS-OFFICE: https://www.rgyesm.org/uploads/books/MICROSOFT-OFFICE-BOOK.pdf
- MS-OFFICE: Hindi Notes: https://www.copaguide.com/2020/04/ms-office-topics.html, Microsoft Office Full Crash Course: https://www.youtube.com/watch?v=SH4oyV5AJ6A

PART -D:Assessment andEvaluation -Practical			
Suggested Continuous Evaluation Methods: Maximum Marks: 100 Marks Continuous Internal Assessment(CIA): 30 Marks End Semester Exam (ESE): 70 Marks			
Continuous InternalAssessment (CIA): **(By CourseTeacher)**	Internal Test / Quiz-(2): 20 +20 Assignment / Seminar+ Attendance - 10 Total Marks - 30	Better marks out of the two Test / Quiz **+** obtained marks in Assignment shall be considered against **30** Marks	
End Semester Exam (ESE):	**Laboratory / Field Skill Performance:** **On spot Assessment** G. practical work - 40 Marks H. Lab record – 10 Marks **I.** Viva-voce - 20 Marks		Managed by Course teacher as per lab. status

Name and Signature of Convener & Members of CBoS:

Diploma in Computer Application

DEPARTMENT OF COMPUTER APPLICATION

COURSE CURRICULUM

PART-A: Introduction			
Program: Diploma in Computer Application		**Semester: I**	**Session:2024-2025**
1	Course Code	**CADC-03T**	
2	Course Title	**Programming in C**	
3	Course Type	Discipline Specific Course (Theory)	
4	Pre-requisite(if any)	As per Program	
5	Course Learning Outcomes (CLO)	After completing this course, the students will be able to: • Identify situations where computational methods and computers would be useful. • Given a computational problem, identify and abstract the programming task involved. • Develop programming skill and learn how to implement a new software. • Develop programming and logical concepts which helps to build up source code of concern programming language. • Understand the concept of programming like Compilation. Debugging, Executing. Linking and Loading. • Familiar about the structure of C and C++ program.	
6	Credit Value	4 Credits	(Credit=15 hours-learning & observation)
7	Total Marks	Max. Marks: 100(70+30)	Min Passing Marks : 40

PART- B: CONTENT OF THE COURSE

Total No. of Teaching-learning Periods (01 hour per period)- 60 Periods (60 Hours)

Unit	**Topics (Course Contents)**	**No. of Period**
I	**Programming Languages** - Introduction & History, Types of Programming Languages - Low Level, Middle Level & High Level Languages, Generations of Languages; Language Translator - Assembler, Compiler, Interpreter, Concept of Flow Chart & Algorithms. **Introduction to C:** C programming structure and C compiler, Data representation: Simple data types like real, integer, character etc. Program, statements and Header Files, Simple Input Output statements in C, Running Simple C programs. Primitive data types in C, char, integer, float, Double Long, Double Void etc. Operators and Expressions - Arithmetic Operators, Assignment Operators, increment and decrement operator, relational and Boolean operators, Mixing of Different data types and operators for forming expressions.	15
II	**Control Structure:** If - statement, If -else statement, Multiway decision, Compound Statement, Loops: For - loop, While -loop, Do-While loop, Break statement, Switch statement, Continue statement, Goto statement. **Functions**: Function main, Functions accepting more than one parameter, User defined and library functions, Concept associatively with functions, function parameter, Return value, recursion comparisons of Iteration and recursion	15

	variable length argument list.	
III	**Arrays**, Strings, Multidimensional Arrays, Strings, Array of Strings, Function in String. **Pointers:** Definition and, use of pointer, address operator, pointer variable, referencing pointer, void pointers, pointer arithmetic, pointer to pointer, pointer and arrays, passing arrays to functions, pointer and functions, accessing array inside functions, pointers and two dimensional arrays, array of pointers, pointers constants, pointer and strings.	15
IV	**Structure and Union**, Declaring and using Structure, Structure intialization, Structure within Structure, Operations on Structures, Array of Structure, Array within Structure, Creating user defined data type, pointer to Structure and function. Union, difference between Union and Structure, Operations on Union, Scope of Union. **Dynamic memory allocation**, Library function for Dynamic memory allocation, Dynamic Multi-Dimensional arrays, Self-referential structure. File: - Introduction, Structure, File handling, Functions file types, Unbuffered and buffered file, Error handling. Low level file Input- Output.	15
Keywords	Token, datatype, Operators, Functions, Class, Inheritance, Polymorphism.	
Name and Signature of Convener & Member of BoS:		

Part - C : Learning Resources

Text Books, Reference Books, Others

Text Books Recommended-

- Let us C: Yashwant Kanetkar, BPB Publications.
- Programming in ANSI C, E. Balaguruswamy, Tata McGraw Hill

Reference Books Recommended:

- Program Design, Peter Juliff, PHI Publications

E-resources:

- **C different topics from W3School**
  https://www.w3schools.com/c/
- **C different topics from Javatpoint**
  https://www.javatpoint.com/c-programming-language-tutorial

<table>
<tr><td colspan="3">PART -D: Assessment and Evaluation -Theory</td></tr>
<tr><td colspan="3">Suggested Continuous Evaluation Methods:
Maximum Marks: 100 Marks
Continuous Internal Assessment(CIA): 30 Marks
End Semester Exam (ESE): 70 Marks</td></tr>
<tr><td>Continuous Internal Assessment (CIA):
(By CourseTeacher)</td><td>Internal Test / Quiz-(2): 20 +20
Assignment / Seminar - 10
Total Marks - 30</td><td>Better marks out of the two Test / Quiz + obtained marks in Assignment shall be considered against 30 Marks</td></tr>
<tr><td>End Semester Exam (ESE):</td><td colspan="2">Two section – A & B
Section A:
Q1. Objective – 10 x1= 10 Mark; Q2. Short answer type- 5x4 =20Marks
Section B:
Descriptive answer type qts.,1 out of 2 from each unit-4x10=40 Marks</td></tr>
</table>

Name and Signature of Convener & Members of BoS:

Diploma in Computer Application

DEPARTMENT OF COMPUTER APPLICATION

COURSE CURRICULUM

PART-A: Introduction			
Program **:Post Graduate Diploma in Computer Application**		**Semester: I**	**Session:2024-2025**
1	Course Code	**CADC-03P**	
2	Course Title	**Programming in C**	
3	Course Type	Discipline Specific Course (practical)	
4	Pre-requisite(if any)	As per Syllabus	
5	Course Learning Outcomes (CLO)	After completing this course, the students will be able to: • Identify situations where computational methods and computers would be useful. • Given a computational problem, identify and abstract the programming task involved. • Develop programming skill and learn how to implement a new software. • Develop programming and logical concepts which helps to build up source code of concern programming language. • Familiar about the structure of C program.	
6	Credit Value	4 Credit	(1 Credit=15 hours Laboratory)
7	Total Marks	Max. Marks: 100	Min Passing Marks: 40

Part B: Content of the Course	
Total No. of learning-Training/performance Periods: 60 Periods (60 Hours)	
Module	**Note: This is tentative list; the teachers concern can add more program as per requirement.**
Lab./ Experiment Contents of Course,	1. Write a program in C for addition of two numbers using float data type. 2. Write a program in C to find the biggest number between two numbers. 3. Write a program in C to find the factorial value of any entered number using do while loop. 4. Write a program in C for various arithmetic operations using switch case statements. 5. Write a program in C for Multiplication of two 3X3 matrix. 6. Write a program in C to store five books information using structure. 7. Write a program in C to store six employee information using union. 8. Write a program in C to calculate simple interest using call by value and call by reference method. 9- Write a program to demonstrate work of malloc(), realloc() and free(). 10. Write a program in C to print structure like this 1 12 123 1234 12345 11. WAP to display Fibonacci series (i) using recursion, (ii) using iteration

	12.WAP to calculate Factorial of a number (1) using recursion, (ii) using iteration 13. WAP to calculate GCD of two numbers (1) with recursion (ii) without recursion. 14. Write a program in C to show different operators. 15. Write a program in C for string function. 16.Write a program in C for pointer arithmetic. 17. Write a program in C to show pointer to pointer. 18. Write a program in C to check given year is leap year or not. 19. Write a program in C to check given no is even or odd. 20. Write a program in C to check given no is prime no or not. 21. Write a program in C to check given no Armstrong no or not. 22. Write a program in C to print prime no series up to 1000.

Part - C

Learning Resource: Text Books, Reference Books, Others

Text Books Recommended-

- Let us C: Yashwant Kanetkar, BPB Publications.
- Programming in ANSI C, E. Balaguruswamy, Tata McGraw Hill

Reference Books Recommended:

- Program Design, Peter Juliff, PHI Publications

E-resources:

- C different topics from SWAYAM/NPTEL
- Introduction
  https://onlinecourses.nptel.ac.in/noc19_cs38/preview
  https://onlinecourses.nptel.ac.in/noc22_cs103/preview
  https://www.youtube.com/watch?v=KG4hjVDw-p8&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=2
- C different topics from Javatpoint
  https://www.javatpoint.com/c-programming-language-tutorial

PART -D: Assessment and Evaluation -Practical			
Suggested Continuous Evaluation Methods: Maximum Marks: 100 Marks Continuous Internal Assessment(CIA): 30 Marks End Semester Exam (ESE): 70 Marks			
Continuous InternalAssessment (CIA): **(By CourseTeacher)**	Internal Test / Quiz-(2): 20 +20 Assignment / Seminar+ Attendance - 10 Total Marks - 30	Better marks out of the two Test / Quiz + obtained marks in Assignment shall be considered against **30** Marks	
End Semester Exam (ESE):	**Laboratory / Field Skill Performance: On spot Assessment** J. practical work - 40 Marks K. Lab record – 10 Marks **L.** Viva-voce - 20 Marks		Managed by Course teacher as per lab. status

Name and Signature of Convener & Members of CBoS: