Scheme of B.A. (Computer Application)

Year	Course Code	Subject Name	Theory/ Practical	Total Credit	Total Marks	
					Max	Min
First	BACA-1T	Computer Fundamental and Information Technology	Theory	4	50	17
	BACA -2T	PC Software and Multimedia	Theory	4	50	17
	BACA-1P	LAB 1: PC Software and Multimedia	Practical	2	50	17
Second	BACA-3T	Programming in C++	Theory	4	50	17
	BACA-4T	Relational Database Management System	Theory	4	50	17
	BACA-2P	LAB 2: Programming in C++	Practical	2	50	17
Third	BACA-5T	Web Technology	Theory	4	50	17
	BACA-6T	E-Commerce	Theory	4	50	17
	BACA-3P	LAB 3: Web Technology	Practical	2	50	17
Total				**30**	**450**	

Note: There shall be four extra credits in all the years of under graduation for internship/apprenticeship. The certificate of extra credits would be provided by the concern university and is not mandatory.

06.07.2022

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

Part A: Introduction				
Program: **Certificate Course**		Class: **B.A. (CA) I Year**	Year: **2022**	Session:**2022-2023**
1	Course Code	**BACA-1T**		
2	Course Title	**Computer Fundamentals and Information Technology**		
3	Course Type	**Theory**		
4	Pre-requisite (if any)	No		
5	Course Learning. Outcomes (CLO)	At the end of this course, the students will be able to: • Understand the history and types of computers and various input/output devices. • Understand the concept of memory and its types. • Understand the basic components and storage of computer system.. • Understand the concept of software and computer languages. • Understand the concept of information technology.		
6	**Credit Value**	**Theory: 4**		
7	**Total Marks**	**Max. Marks: 50**	**Min Passing Marks: 17**	

Part B: Content of the Course		
Total No. of Periods: 60		
Unit	**Topics**	**No. of Periods**
I	**Fundamental of Computer**: History of computer, Generation of computer, Types of Computers, Block diagram of CPU, Digital and Analog computers and its evolution. Major components of digital computers, types of digital computers, Microprocessors, Single chip Microcomputer, Large and small computers, Users interface, hardware, software and firmware, multiprogramming, multiuser system, Dumb smart and intelligent terminals, **Number system & Computer Codes:** Number systems: Decimal number system. Binary number system. Octal and Hexadecimal number system. 1's and 2's complement. Codes: ASCII, EBCDI codes, gray code and BCD.	12
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 Devices: Output Fundamentals, Hardcopy Output Devices, Impact Printers, Non-Impact Printers, Plotters, Computer output Microfilm/Microfiche (COM) System, Softcopy Output Devices, Cathode Ray Tube, Flat Screen Technologies, Projectors, Speakers	12
III	**Basic Components and 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.	12
IV	**Computer Software and languages:** System Software: System software Vs. Application Software, Types of System Software, Introduction and Types of Operating Systems, Boot Loader, Diagnostic programs, BIOS, Utility Programs, Application .Software: Microcomputer Software, Interacting with the System,	12

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

	Trends in PC software, Types of Application Software, Difference between Program and Packages. Computer Language: Definition, Generations of Computer languages, Types of Languages, Language Processors: Assembler, Interpreter, Compiler, Linker and Loader, Programming constructs, Algorithm and flowchart.	
V	**Information Technology:** Concept of IT and information system, Application of IT (In Business, Education Medicine Science Governance and Agriculture) Impact of IT on society and industry, Legal and Ethical aspect of IT, Security and Threats in IT, M-Commerce, Virtual reality, latest trend in IT, future of IT.	12

Keywords: Computer, Input /Output Devices, Memory, Software and Computer Languages, IT.

Part C - Learning Resources

Text Books, Reference Books, Other Resources

Suggested Readings:

1. Computer Fundamentals, P.K. Sinha, BPB Publication, Sixth Edition.
2. Fundamentals of Computers, V. Rajaraman, PHI Sixth Edition.
3. Computer Fundamentals Architecture and Organization, B. Ram, New Age International Publishers, Fifth Edition.
4. Fundamentals of Information Technology, Chetan Shrivastava, Kalyan Publishers.
5. Computers Today, Suresh K. Basandra, Galgotia Publications.
6. Fundamentals of Information Technology, Alexis Leon and Mathews Leon, Vikash Publication.

E-Resources:

Introduction to Computer Fundamental:

1. https://www.w3schools.blog/computer-fundamentals-tutorial
2. https://vikaspedia.in/education/digital-litercy/it-literacy-courses-in-associating-with-msup/computer-fundamentals
3. https://www.tutorialspoint.com/computer_fundamentals/index.htm
4. https://vikaspedia.in/education/digital-litercy/it-literacy- courses-in-associating-with-msup/computer-fundamentals
5. Concept of IT: https://onlinecourses.swayam2.ac.in/cec20_cs05/preview

Part D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:
Maximum Marks: 50
Continuous Comprehensive Evaluation (CCE): As per rule
University Exam(UE): 50 Marks

Internal Assessment: Continuous Comprehensive Evaluation (CCE)	Class Test/Assignment/Presentation	As per rule

Declaration

The syllabus of this subject is framed as per the TOR provided by the department of higher education, Chhattisgarh.

1. Dr. H.S. Hota - Chairman
   Prof. and Head, Department of Computer Science and Application
   Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur

06.07.2022

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

2.	Dr. Sanjay Kumar Prof. and Head, SoS in Computer Science, Pt. Ravishankar Shukla University, Raipur	- Member (Present Online)
3.	Mr. Jitendra Kumar Asst. Prof., Dept. of Computer Science and Application Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur	- Member
4.	Mr. H.S.P. Tonde Asst. Prof. and Head, Dept. of Computer Science, Sant Gahira Guru University Sarguja, Ambikapur	- Member (Present Online)
5.	Dr. Mamta Singh Asst. Prof. and Head, Sai College, Bhilai Hemchand Yadav Vishwavidyalaya, Durg	- Member (Present Online)
6.	Mr. Sushil Kumar Sahu Asst. Prof. and Head, Christ College, Jagdalpur Shaheed Mahendra Karma Vishwavidyalaya, Bastar	- Member (Present Online)
7.	Mr. Vikrant Gupta Prof. and Head, Batmul Ashram College, Salheana Shaheed Nand Kumar Patel University, Raigarh	- Member (Present Online)
8.	Mr. L.K. Gavel Asst. Prof. and Head, Govt. Ghanshyam Singh Gupt, PG College, Balod Hemchand Yadav Vishwavidyalaya, Durg	- Member (Present Online)
9.	Dr. Anil Kumar Sharma Asst. Prof. and Head, A.P.S.G.M.N.S, Govt. PG College, Kawardha Hemchand Yadav Vishwavidyalaya, Durg	- Member (Present Online)
10.	Mr. Vishwnath Tamrakar Asst. Prof. and Head, Sant Guru Ghasidas Govt. PG College, Kurud, Pt. Ravishankar Shukla University, Raipur	- Member
11.	Ms. Anjeeta Kujur Asst. Prof. and Head, Govt. R.B.R.N.E.S. PG College, Jashpur Sant Gahira Guru University Sarguja, Ambikapur	- Member (Present Online)
12.	Mr. Suresh Kumar Thakur Asst. Prof. and Head, Indira Gandhi Govt. PG College, Vaishali Nagar Hemchand Yadav Vishwavidyalaya, Durg	- Member (Present Online)
13.	Dr. Ugrasen Suman Prof. and Head, Dept. of Computer Science Devi Ahila Vishwavidyalaya, Indore	- Member

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

Part A: Introduction				
Program: **Certificate Course**		Class: **B.A. (CA) I Year**	Year: **2022**	Session:**2022-2023**
1	Course Code	**BACA-2T**		
2	Course Title	**PC Software and Multimedia**		
3	Course Type	**Theory**		
4	Pre-requisite (if any)	No		
5	Course Learning. Outcomes (CLO)	At the end of this course, the students will be able to: • Understand the MS Word with page setup, formatting text, print documents and mail merge • Understand the MS Excel with creating sheets, calculation in cell and prepare charts. • Understand the sorting & filter in MS Excel. • Understand the MS Power point with design templates, slide transaction and animation effects. • Understand the MS Access and graphics.		
6	**Credit Value**	**Theory: 4**		
7	**Total Marks**	**Max. Marks: 50**	**Min Passing Marks: 17**	

Part B: Content of the Course		
Total No. of Periods: 60		
Unit	**Topics**	**No. of Periods**
I	**PC PACKAGE:** Introduction to PC and Types of PC, **Introduction to word** processing software and if'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 Printer, Copy paste and pasts 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).	12
II	**WORKING WITH MS-EXCEL:** Introducing Excel, Use of Excel sheet, creating new sheet, Saving, Opening & 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 (heading & Footer, word art, signature line). **Page Layout Tab**: Page setup options, Scale to fit (width, height, scale) **Formulas Tab**: Auto sum (sum, average, min, max). Logical (IF, 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 and Share workbook. **View Tab**: Page break, Page layout, freezing panes, Split and hide.	12
III	**WORKING WITH MS-POWERPOINT**: 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,	12

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

	object, **Design Tab**: Page setup option, slide orientation, applying various themes, selecting background style and formatting it. **Animation 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 slide show options, setup option. **View Tab**: Presentation views, colors and window option.	
IV	**WORKING WITH MS-ACCESS**: Front end and back end of application, Introduction to DMBS, features of DBMS, creating blank databases, Saving it in accdb format. Defining data type in MS Access. **Home Tab**: Datasheet view, design view, pivot chart view, pivot table view, sort and filter prions. **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.	12
V	**ANIMATION AND GRAPHICS**: Basic concept of 2D/3D Animation, Principle of animation, application of Multimedia, hardware and Software resources requirement for animation, introduction of various file formats (. mpeg, gif, jpeg, mp4, .tif, .flv) Creating a new movie in flash: Get set Up, Input Text, Animate Text, Drawing and painting with tools, brush, create basic shapes like oval, Rectangle & Polystar Tools, Tools working with object & filing the object. Transformation, object properties, dialog box, creating layers, motion tweening, shape tweening, Mask layers, basic action scripts, importing sound through Flash	12
Keywords: MS Word, MS Excel, MS Power Point, MS Access, Graphics		

Part C - Learning Resources

Text Books, Reference Books, Other Resources

Suggested Readings:

1. Microsoft Office 2007 Fundamentals, L. Story, D. Walls.
2. MS Office, S.S. Shrivastava, Firewall Media.
3. Office 2000 made easy, Alan Neibauer, Tata McGraw Hill.
4. FLASHMX Bible, Robert Reinhart.
5. Sams Teach Yourself Macromedia Flash 8 in 24 Hours, Phillip Kerman
6. How to do everything with Macromedia, Bonnic Blake, Doug Sahlin
7. Multimedia Making it works, Tay Vaughan Tata McGraw Hill

E-learning Resources:

1. Introduction to MS-Word:
   https://www.w3schools.blog/ms-word-tutorial
2. Introduction to MS-Excel:
   https://www.w3schools.com/excel/excel_introduction.php
3. Introduction to MS-Power Point:
   https://www.w3schools.blog/powerpoint-tutorial
4. Introduction to MS-Access:
   https://www.w3schools.com/sql/sql_ref_msaccess.asp
5. Concept of Animations:
   https://onlinecourses.swayam2.ac.in/ugc19_cs09/preview

Part D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:
Maximum Marks: 50

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

Continuous Comprehensive Evaluation (CCE): As per rule University Exam(UE): 50 Marks		
Internal Assessment: Continuous Comprehensive Evaluation (CCE)	Class Test/Assignment/Presentation	As per rule

Declaration

The syllabus of this subject is framed as per the TOR provided by the department of higher education, Chhattisgarh.

1. Dr. H.S. Hota - Chairman
   Prof. and Head, Department of Computer Science and Application
   Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur
2. Dr. Sanjay Kumar - Member
   Prof. and Head, SoS in Computer Science, (Present Online)
   Pt. Ravishankar Shukla University, Raipur
3. Mr. Jitendra Kumar - Member
   Asst. Prof., Dept. of Computer Science and Application
   Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur
4. Mr. H.S.P. Tonde - Member
   Asst. Prof. and Head, Dept. of Computer Science, Sant Gahira Guru (Present Online)
   University Sarguja, Ambikapur
5. Dr. Mamta Singh - Member
   Asst. Prof. and Head, Sai College, Bhilai Hemchand Yadav (Present Online)
   Vishwavidyalaya, Durg
6. Mr. Sushil Kumar Sahu - Member
   Asst. Prof. and Head, Christ College, Jagdalpur Shaheed Mahendra Karma (Present Online)
   Vishwavidyalaya, Bastar
7. Mr. Vikrant Gupta - Member
   Prof. and Head, Batmul Ashram College, Salheana Shaheed Nand Kumar (Present Online)
   Patel University, Raigarh
8. Mr. L.K. Gavel - Member
   Asst. Prof. and Head, Govt. Ghanshyam Singh Gupt, PG College, Balod (Present Online)
   Hemchand Yadav Vishwavidyalaya, Durg
9. Dr. Anil Kumar Sharma - Member
   Asst. Prof. and Head, A.P.S.G.M.N.S, Govt. PG College, Kawardha (Present Online)
   Hemchand Yadav Vishwavidyalaya, Durg
10. Mr. Vishwnath Tamrakar - Member
    Asst. Prof. and Head, Sant Guru Ghasidas Govt. PG College, Kurud, Pt.
    Ravishankar Shukla University, Raipur
11. Ms. Anjeeta Kujur - Member
    Asst. Prof. and Head, Govt. R.B.R.N.E.S. PG College, Jashpur Sant Gahira (Present Online)
    Guru University Sarguja, Ambikapur
12. Mr. Suresh Kumar Thakur - Member
    Asst. Prof. and Head, Indira Gandhi Govt. PG College, Vaishali Nagar (Present Online)
    Hemchand Yadav Vishwavidyalaya, Durg
13. Dr. Ugrasen Suman - Member
    Prof. and Head, Dept. of Computer Science
    Devi Ahila Vishwavidyalaya, Indore

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

Part A: Introduction				
Program: Certificate Course		Class: B.A. (CA) I Year	Year: 2022	Session:2022-2023
1	Course Code	BACA-1P		
2	Course Title	LAB 1: PC Software and Multimedia		
3	Course Type	Practical		
4	Pre-requisite (if any)	Theoretical Knowledge of MS-Office and Multimedia.		
5	Course Learning. Outcomes (CLO)	At the end of course, Students will be able to: • Learn Modern office activities and their software requirements. • Create a new Word document and formatting a document using MS-WORD. • Create an electronic spreadsheet using MS-Excel, familiarize oneself with Excel's basicand advance features. • Create a slide show presentation and explore the Microsoft Office PowerPointenvironment. • Create table, form, query, report using MS-Access • Know about Animation, First movement of animation with shadow and light. • know about the history how the early people think or to add motion in animation		
6	**Credit Value**	**Practical: 2**		
7	**Total Marks**	**Max. Marks: 50**	**Min Passing Marks: 17**	

Part B: Content of the Course	
Total Periods: 30	
Tentative Practical List	**Note:** This is tentative list; the teachers concern can add more program as per requirement. **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 specifications 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 in 10-point Times New Roman. • Leave a gap of 12-points after the title. 2. Create a **telephone directory**. • The heading should be 16-point Arial Font in bold. • The rest of the document should use 10-point font size. • Other headings should use 10-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 departmentin 14-point Arial. • 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 plans to release a new book designed as per 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.

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

- The name of the author and his qualifications should be in the center of the pagein 16-point Arial font.
- At the bottom of the document should be the name of the publisher and addressin 16-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 to a get-together at your house, including a listof things to bring with them.
   - Design a certificate in landscape orientation with a border around the document.
   - Design a Garage Sale sign.
   - Make a sign outlining your rules for your bedroom at home, using a numberedlist.
6. Create the following documents:
   - A newsletter with a headline and 2 columns in portrait orientation, includingat least 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 delimiterType the following as shown (do not bold).

Color, Style, Item
Blue, A980, Van
Red, X023, Car
Green, YL724, Truck
Name, Age, Sex
Bob, 23, M
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 **Dolls** columnsto the given table Sort your table data by Region and within Region by Salesperson in ascending order:
In this exercise, you will add a new row to your table, place the word **Total** at the bottom of the Salesperson column, and sum the Dolls, Trucks, and Puzzles columns.

9. Wrapping of text around the image.

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

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:

i. Title in TIMES NEW ROMAN
ii. Font Size - 14
iii. Remaining text - ARIAL, Font Size -10
iv. State names and Qtr. Heading Bold, Italic with Gray Fill Color.
v. Numbers in two decimal places.
vi. Qtr. Heading in center Alignment.
vii. 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	Sehwag	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	A
>= 50 and < 60	B
< 50	F

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	8300		
8	S006	5300	7600	9800	6100		

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

If Total Sales	Then Commission

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

< 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 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 inthe format below:

No. of Installments	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 therate of Interest and time

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

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

Salesman	2019	2020	2021	2022

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

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.
  (i) If total sales >4,00,000 give 5% commission on total sale made by the salesman.
  (ii) 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 salesman in 2000.

8. Enter the following data in Excel Sheet

PERSONAL BUDGET FOR FIRST QUARTER

Monthly Income (Net): 1,475

EXPENSES	JAN	FEB	MARCH QUARTER TOTAL	QUARTER AVERAGE
Rent	600.00	600.00	600.00	
Telephone	48.25	43.50	60.00	
Utilities	67.27	110.00	70.00	
Credit Card	200.00	110.00	70.00	
Oil	100.00	150.00	90.00	
AV to Insurance	150.00			
Cable TV	40.75	40.75	40.75	
Monthly Total				

Calculate Quarter total and Quarter average.
(a) Calculate Monthly total.
(b) Surplus = Monthly income - Monthly total.
(c) What would be total surplus if monthly income is 1500.
(d) How much does telephone expense for March differ from quarter average.
(e) Create a 3D column graph for telephone and utilities.
(f) Create a pie chart for monthly expenses.

9. Enter the following data in Excel Sheet

TOTAL REVENUE EARNED FOR SAM'S BOOKSTALL

Publisher Name	1997	1998	1999	2000	Total
A	Rs. 1,000.00	Rs. 1100.00	Rs. 1,300.00	Rs. 800.00	
B	Rs. 1,500.00	Rs. 700.00	Rs. 1,000.00	Rs. 2,000.00	
C	Rs. 700.00	Rs. 900.00	Rs. 1,500.00	Rs. 600.00	
D	Rs. 1,200.00	Rs. 500.00	Rs. 200.00	Rs 1,100.00.	

(a) Compute the total revenue earned.
(b) Plot the line chart to compare the revenue of all publishers for 4 years.
(c) Chart Title should be _Total Revenue of Sam's Bookstall (1997-2000)'
(d) Give appropriate categories and value axis title.

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

10. Generate 25 random numbers between 0 & 100 and find their sum, average and count. Howmany no. are in range 50-60.

MS Power Point

1. Do the following task:
   - i. Start a new blank presentation
   - ii. Your first Slide is going to be a Title Slide
   - iii. Write the Text as in the preview below:
     Lighthouse Co Ltd
   - iv. Make the Font of "Lighthouse" Arial Black and size 88
   - v. Insert a second slide this should be with a layout of Bulleted List
   - vi. Write the Text as in preview below
     - (a) [Title]: Lighthouse Co Ltd
     - (b) [Body]:
       - i. Mission Statement
       - ii. Company Objectives
       - iii. Management Team
       - iv. Employees
       - v. Sales
   - vii. Make the Font Colour of the Points to Green
   - viii. Insert a third slide this 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
   - ix. Add a fourth slide 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 TVs 21"	Black and White TVs
DVD Recorders	Video Players
7.1 Dolby Surround Systems	2 channel stereo systems

   - x. Make the titles New Products and Discontinued Products with a shadow effect and centred in the cell. Widen columns to fit Text as above.
   - xi. 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	20	27	90	75
DVDs	30	38	34	31
Wifi equipment	45	46	45	43
Video Recorders	25	29	15	40

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

2. Do the following:

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

i. Load your Presentation Application and start a new presentation
ii. The first slide is a Title Slide. Select the appropriate layout and enter the title: **Annual Food Fair**
iii. Add the sub title: .**A Celebration of Eating**
iv. Insert a small, red circle at the bottom right of the title slide.
v. Change the font colour for the whole title and sub title to blue, and apply a text shadow effect just to the words **Food** and **Fair**
vi. 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
vii. Change the line spacing for these bullet points to 1.5 lines.
viii. Increase the font size for the words **The Menu** in the title.
ix. 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)
x. Insert a third slide, which is to be an organisation 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**
xi. Embolden the text in the title of the third slide, and change the font to Arial.
xii. Apply a light coloured background to all the slides in the presentation
xiii. 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.
xiv. Save the presentation as **foodfair**.
xv. Print the presentation with three slides per page, and close the presentation.

3. Do the followings:
i. Load your Presentation Application and start a new presentation
ii. The first slide is a Title Only Slide. Select the appropriate layout and enter the title: **Cook Family Cruises**.
iii. Add a small blue rectangle at the top left of this slide.
iv. Change the font colour for the whole title to red, and apply a text shadow effect just to the word **Cruises**.
v. 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
vi. 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.
vii. 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%
viii. Embolden the text in the title of the third slide, and change the font to Arial.
ix. Apply a different background to each slide in the presentation.
x. 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 text.

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

xi. Add a 4th slide containing nothing but the text: **Travel with us for less!!**
xii. Save the presentation as holidays.
xiii. Print the presentation with 4 slides per page, and close the presentation.

4. Create an animation looks like the leaf is falling in a tree.
5. Create an animation looks like demolish 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
   b. Class, Roll no and Name with these Information i.e., Field Name, Data type and Description 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.

Multimedia Animation and Photoshop

1. Create a Flash movie to draw the symbol of an animal and apply motion between.
2. Create a Flash movie to create a minimum of five layers (Water, fish, bubbles, plants etc.) of an aquarium and apply motion between.
3. Create a Flash movie to create mask.
4. Create a Flash movie to create Fade In/Fade Out in four pictures.
5. Create a Flash movie to create the symbol of a wheel and scale and rotate it.
6. Import an image in Photoshop and change its background using marquee and lasso tools.
7. Import an image in Photoshop and copy it using heal brush tool.

Keywords: MS Word, MS Excel, MS Power Point, MS-Access, Animations and Graphics.

Part C - Learning Resource

Text Books, Reference Books, Other Resources

Suggested Readings:

1. Microsoft Office 2007 Fundamentals, L. Story, D. Walls.
2. MS Office, S.S. Shrivastava, Firewall Media.
3. Office 2000 made easy, Alan Neibauer, Tata McGraw Hill.
4. FLASHMX Bible, Robert Reinhart.
5. Sams Teach Yourself Macromedia Flash 8 in 24 Hours, Phillip Kerman
6. How to do everything with Macromedia, Bonnic Blake, Doug Sahlin
7. Multimedia Making it works, Tay Vaughan Tata McGraw Hill

E-Resources

1. Introduction to MS-Word: https://www.w3schools.blog/ms-word-tutorial
2. Introduction to MS-Excel: https://www.w3schools.com/excel/excel_introduction.php
3. Introduction to MS-Power Point: https://www.w3schools.blog/powerpoint-tutorial

Part D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:

Maximum Marks: 50

Continuous Comprehensive Evaluation (CCE): As per rule

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

University Exam(UE): 50 Marks		
Internal Assessment: Continuous Comprehensive Evaluation (CCE)	Class Test/Assignment/Presentation	As per rule

Declaration

The syllabus of this subject is framed as per the TOR provided by the department of higher education, Chhattisgarh.

1. Dr. H.S. Hota - Chairman
   Prof. and Head, Department of Computer Science and Application
   Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur
2. Dr. Sanjay Kumar - Member
   Prof. and Head, SoS in Computer Science, (Present Online)
   Pt. Ravishankar Shukla University, Raipur
3. Mr. Jitendra Kumar - Member
   Asst. Prof., Dept. of Computer Science and Application
   Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur
4. Mr. H.S.P. Tonde - Member
   Asst. Prof. and Head, Dept. of Computer Science, Sant Gahira Guru (Present Online)
   University Sarguja, Ambikapur
5. Dr. Mamta Singh - Member
   Asst. Prof. and Head, Sai College, Bhilai Hemchand Yadav (Present Online)
   Vishwavidyalaya, Durg
6. Mr. Sushil Kumar Sahu - Member
   Asst. Prof. and Head, Christ College, Jagdalpur Shaheed Mahendra Karma (Present Online)
   Vishwavidyalaya, Bastar
7. Mr. Vikrant Gupta - Member
   Prof. and Head, Batmul Ashram College, Salheana Shaheed Nand Kumar (Present Online)
   Patel University, Raigarh
8. Mr. L.K. Gavel - Member
   Asst. Prof. and Head, Govt. Ghanshyam Singh Gupt, PG College, Balod (Present Online)
   Hemchand Yadav Vishwavidyalaya, Durg
9. Dr. Anil Kumar Sharma - Member
   Asst. Prof. and Head, A.P.S.G.M.N.S, Govt. PG College, Kawardha (Present Online)
   Hemchand Yadav Vishwavidyalaya, Durg
10. Mr. Vishwnath Tamrakar - Member
    Asst. Prof. and Head, Sant Guru Ghasidas Govt. PG College, Kurud, Pt.
    Ravishankar Shukla University, Raipur
11. Ms. Anjeeta Kujur - Member
    Asst. Prof. and Head, Govt. R.B.R.N.E.S. PG College, Jashpur Sant Gahira (Present Online)
    Guru University Sarguja, Ambikapur
12. Mr. Suresh Kumar Thakur - Member
    Asst. Prof. and Head, Indira Gandhi Govt. PG College, Vaishali Nagar (Present Online)
    Hemchand Yadav Vishwavidyalaya, Durg
13. Dr. Ugrasen Suman - Member
    Prof. and Head, Dept. of Computer Science
    Devi Ahila Vishwavidyalaya, Indore

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

Part A: Introduction				
Program: **Diploma Course**		Class: **B.A. (CA) II Year**	Year: **2022**	Session:**2022-2023**
1.	Course Code	**BACA-3T**		
2.	Course Title	**Programming in C++**		
3.	Course Type	**Theory**		
4.	Pre-requisite (if any)	No		
5.	Course Learning. Outcomes (CLO)	At the end of this course, the students will be able to: • Develop programming skill and learn how to implement 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++ program. • Understand about the cursor movement and control structure of C++ program. • Write simple C++ programs using programming concepts. • Familiar about procedure oriented and object oriented concepts. • Understand the concept of inheritance and polymorphism which helps them to develop programs to solve real world problems. • Use file handling concepts in C++ to develop programs for real life projects. • Develop new applications with C++ which helps them to switch in Software Industry.		
6.	**Credit Value**	**Theory : 4**		
7.	**Total Marks**	**Max. Marks: 50**	**Min Passing Marks : 17**	

Part B: Content of the Course		
Total Periods: 60		
Unit	**Topics**	**No. of Periods**
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 types.	12
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.	12

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

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.	12
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.	12
V.	**Input-Output and File Handling :** I/O classes, File and Stream classes, Char I/O, String I/O, Object I/O, File Pointer, Opening and Closing file. **Exception Handling and Standard Template Library :** Definition, Exception basics, try, catch and throws keywords, Template, Components of STL.	12
Keywords: Token, Datatype, Operators, Functions, Class, Object, Inheritance, Polymorphism, Abstraction, Friend Function, Overriding, Overloading.		

Part C - Learning Resources

Text Books, Reference Books, Other Resources

Suggested Readings:

1. Program Design, Peter Juliff, PHI Publications .
2. Let us C: Yashwant Kanetkar, BPB Publications .
3. Programming in ANSI C , E. Balaguruswamy, Tata McGraw Hill
4. Let us C++ ,Y. Kanetkar, B.P.B Publication .
5. Programming in C++, E. Balaguruswamy, Tata McGraw Hill.

E Resources:

1. Introduction to C and C++ from SWAYAM/NPTEL
   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
2. Constant and Inline Function
   https://www.youtube.com/watch?v=pX6LufLso2M&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=10
3. Pointer and Reference
   https://www.youtube.com/watch?v=GtsBZ5e1-cE&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=12
4. Function Overloading
   https://www.youtube.com/watch?v=uJGmGAShHeU&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=13
5. Operator Overloading
   https://www.youtube.com/watch?v=0jpOwe4d-FE&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=17
6. Dynamic Memory Management
   https://www.youtube.com/watch?v=lkFK2X6qIc0&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=18
7. Class and Object
   https://www.youtube.com/watch?v=wtuks_f3vP4&list=PLmp4ylk-

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

B4KrM9uOEdvPIVFUkU3jNc6D2&index=24

8. Access Specifiers
   https://www.youtube.com/watch?v=6ki_W7cXdM0&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=22
9. Constructor and Destructor
   https://www.youtube.com/watch?v=wtuks_f3vP4&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=24
10. C different topics from W3School
    https://www.w3schools.com/c/
11. C++ different topics from W3School
    https://www.w3schools.com/CPP/default.asp
12. C different topics from Javatpoint
    https://www.javatpoint.com/c-programming-language-tutorial
13. C++ different topics from Javatpoint
    https://www.javatpoint.com/cpp-tutorial

Part D: Assessment and Evaluation		
Suggested Continuous Evaluation Methods: Maximum Marks: 50 Continuous Comprehensive Evaluation (CCE): As per rule University Exam(UE): 50 Marks		
Internal Assessment: Continuous Comprehensive Evaluation (CCE)	Class Test/Assignment/Presentation	As per rule

Declaration

The syllabus of this subject is framed as per the TOR provided by the department of higher education, Chhattisgarh.

1. Dr. H.S. Hota - Chairman
   Prof. and Head, Department of Computer Science and Application
   Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur
2. Dr. Sanjay Kumar - Member
   Prof. and Head, SoS in Computer Science, (Present Online)
   Pt. Ravishankar Shukla University, Raipur
3. Mr. Jitendra Kumar - Member
   Asst. Prof., Dept. of Computer Science and Application
   Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur
4. Mr. H.S.P. Tonde - Member
   Asst. Prof. and Head, Dept. of Computer Science, Sant Gahira Guru (Present Online)
   University Sarguja, Ambikapur
5. Dr. Mamta Singh - Member
   Asst. Prof. and Head, Sai College, Bhilai Hemchand Yadav (Present Online)
   Vishwavidyalaya, Durg
6. Mr. Sushil Kumar Sahu - Member
   Asst. Prof. and Head, Christ College, Jagdalpur Shaheed Mahendra Karma (Present Online)
   Vishwavidyalaya, Bastar
7. Mr. Vikrant Gupta - Member
   Prof. and Head, Batmul Ashram College, Salheana Shaheed Nand Kumar (Present Online)
   Patel University, Raigarh
8. Mr. L.K. Gavel - Member
   Asst. Prof. and Head, Govt. Ghanshyam Singh Gupt, PG College, Balod (Present Online)
   Hemchand Yadav Vishwavidyalaya, Durg

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

9.	Dr. Anil Kumar Sharma Asst. Prof. and Head, A.P.S.G.M.N.S, Govt. PG College, Kawardha Hemchand Yadav Vishwavidyalaya, Durg	- Member (Present Online)
10.	Mr. Vishwnath Tamrakar Asst. Prof. and Head, Sant Guru Ghasidas Govt. PG College, Kurud, Pt. Ravishankar Shukla University, Raipur	- Member
11.	Ms. Anjeeta Kujur Asst. Prof. and Head, Govt. R.B.R.N.E.S. PG College, Jashpur Sant Gahira Guru University Sarguja, Ambikapur	- Member (Present Online)
12.	Mr. Suresh Kumar Thakur Asst. Prof. and Head, Indira Gandhi Govt. PG College, Vaishali Nagar Hemchand Yadav Vishwavidyalaya, Durg	- Member (Present Online)
13.	Dr. Ugrasen Suman Prof. and Head, Dept. of Computer Science Devi Ahila Vishwavidyalaya, Indore	- Member

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

Part A: Introduction				
Program: **Diploma Course**		Class: **B.A. (CS) II Year**	Year: **2022**	Session:**2022-2023**
1.	Course Code	**BACA-4T**		
2.	Course Title	**Relational Database Management System**		
3.	Course Type	**Theory**		
4.	Pre-requisite (if any)	No		
5.	Course Learning. Outcomes (CLO)	At the end of this course, the students will be able to: • Learn about Database Concepts, Architecture, various Users, Data Models and Data Management which helps them to interact with various Databases. • Develop various Tables and Databases which helps them to develop new Software. • Practice various SQL commands which help them to generate new relationships among various Tables and Databases which are useful for Software Development. • Familiar about RDBMS Software like Oracle and SQL Server which are used as Backend for Software Development. • Develop new Databases for their Minor and Major Project Development which enhances their Data Storage, Data Accessibility and Data Management.		
6.	**Credit Value**	**Theory : 4**		
7.	**Total Marks**	**Max Marks: 50**	**Min Passing Marks : 17**	

Part B: Content of the Course		
Total Periods: 60		
Unit	**Topics**	**No. of Periods**
I	**Overview of Database Management**: Data, Information and Knowledge, Data Processing versus Data Management, File Oriented Approach verses Database Oriented Approach, Data Independence, Database Administration Roles, Overview of Database, DBMS Architecture, Different kinds of DBMS users, Introduction to Data Dictionary. Data Models: Network Model, Relational Model, Hierarchical Model. Database Languages: DDL, DML, DCL, And TCL. Structured Query Language: Basic Data Types, Commands : Create, Insert, Select, Delete, Truncate , Drop, Alter, Grant ,Revoke, Commit, Rollback, Queries on Multiple Relation, Join Operation, String Operation, Set Operation, Grouping, Nested Subqueries.	12
II	**Concepts of Database Management System :** Definition of Tables, Cardinality relationships in a Database, Constraints in a Database, Entity, Attributes, Strong and weak entities, ER-Diagram, Symbols and Implementation, Concept of keys: Candidate key, Primary key, Alternate key, Foreign key, Case studies of ER modeling Generalization, Specialization and Aggregation. Converting an ER model into relational Schema. Extended ER features.	12
III	**Relational Database Design:** Normalization concept in logical model, Pitfalls in database design, Functional dependencies, Join dependencies, Natural Join, Normal forms (1NF, 2NF, 3NF). Boyce Codd Normal form, Decomposition,	

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

	Multi-Valued Dependencies, 4NF, 5NF. Issues in physical design: Concepts of indexes, File organization for relational tables, De-normalization. Relational Database: Structure of Relational Database, Schema, Relational Operation: Selection, Projection, Cartesian Production, Union, Intersection and Minus operation. Relational Algebra: Select operation, Project operation, Union operation, Cartesian Product operation, Intersection operation, Join operation, Different types of joins (Inner join, Outer join, Self join).	12
IV.	**SQL Server Basics:** Microsoft SQL Server 2019, Overview of SQL Server 2019, Versions of SQL Server, Installation of SQL Server 2019, SQL Server Management Studio(SSMS), Azure Data Studio(ADS), Features of SQL Server Express, SQL Server Support Life Cycle, Data Definition Language (DDL) Commands, Data Manipulation Language (DML) Commands, Data Control Language (DML) Commands, Transaction Control Language (TCL) Commands, Data Constraints, Stored Procedure, Function .	12
V.	**Oracle Basics:** Oracle Corporation, Versions of Oracle, Oracle Products, Oracle Installation, Oracle Client and Server Products, Online Transaction Processing, Hybrid cloud Installation, Data Definition Language (DDL) Commands, Data Manipulation Language (DML) Commands, Data Control Language (DML) Commands, Transaction Control Language (TCL) Commands, Data Constraints, Introduction to PL/SQL Programming, Data Types, Looping Statements, Cursors, Stored Procedure, Function .	12
Keywords: Data Models, Keys, SQL Commands, DBMS, RDBMS, Oracle, SQL Server.		

Part C - Learning Resources

Text Books, Reference Books, Other Resources

Suggested Readings:

1. Database system concept, H. Korth and A. Silberschatz, TMH Publications.
2. Data Base Management System, Alexies & Mathews,Vikash publication.
3. Data Base Management System, C. J. Date ,Narosha Publication.
4. Data Base Management System By James Matin.
5. Principles of Database System By Ullman.
6. Program Design, Peter Juliff, PHI Publications.
7. The Complete Reference, Kevin Loney, Oracle Press.
8. SQL, PL/SQL The Programming Language of Oracle, Ivan Bayross , PustakKosh Publication.
9. Microsoft SQL Server Management and Administration, Ross, STM Publications.

E Resources:

1. SWAYAM URL link for DBMS and RDBMS: https://youtu.be/f6LGtJutWyA
2. SWAYAM URL link for DBMS and RDBM: https://youtu.be/IoL9Ve2SRwQ
3. SWAYAM URL link for DBMS and RDBMS: https://swayam.gov.in/courses/4434-data-base-management-system.
4. Introduction of DBMS: https://onlinecourses.swayam2.ac.in/cec19_cs05/preview
5. Introduction of RDBMS: https://onlinecourses.nptel.ac.in/noc19_cs46/preview
6. DMBS Contents from W3SHOOL: https://www.w3schools.in/dbms/intro
7. Data independence from W3SHOOL: https://www.w3schools.in/dbms/data-independence

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

8. Generalization and Aggregation: https://www.w3schools.in/dbms/generalization-aggregation
9. DMBS Contents from Javatpoint: https://www.javatpoint.com/dbms-tutorial

Part D: Assessment and Evaluation		
Suggested Continuous Evaluation Methods: Maximum Marks: 50 Continuous Comprehensive Evaluation (CCE): As per rule University Exam(UE): 50 Marks		
Internal Assessment: Continuous Comprehensive Evaluation (CCE)	Class Test/Assignment/Presentation	As per rule

Declaration

The syllabus of this subject is framed as per the TOR provided by the department of higher education, Chhattisgarh.

1. Dr. H.S. Hota - Chairman
   Prof. and Head, Department of Computer Science and Application
   Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur
2. Dr. Sanjay Kumar - Member
   Prof. and Head, SoS in Computer Science, (Present Online)
   Pt. Ravishankar Shukla University, Raipur
3. Mr. Jitendra Kumar - Member
   Asst. Prof., Dept. of Computer Science and Application
   Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur
4. Mr. H.S.P. Tonde - Member
   Asst. Prof. and Head, Dept. of Computer Science, Sant Gahira Guru (Present Online)
   University Sarguja, Ambikapur
5. Dr. Mamta Singh - Member
   Asst. Prof. and Head, Sai College, Bhilai Hemchand Yadav (Present Online)
   Vishwavidyalaya, Durg
6. Mr. Sushil Kumar Sahu - Member
   Asst. Prof. and Head, Christ College, Jagdalpur Shaheed Mahendra Karma (Present Online)
   Vishwavidyalaya, Bastar
7. Mr. Vikrant Gupta - Member
   Prof. and Head, Batmul Ashram College, Salheana Shaheed Nand Kumar (Present Online)
   Patel University, Raigarh
8. Mr. L.K. Gavel - Member
   Asst. Prof. and Head, Govt. Ghanshyam Singh Gupt, PG College, Balod (Present Online)
   Hemchand Yadav Vishwavidyalaya, Durg
9. Dr. Anil Kumar Sharma - Member
   Asst. Prof. and Head, A.P.S.G.M.N.S, Govt. PG College, Kawardha (Present Online)
   Hemchand Yadav Vishwavidyalaya, Durg
10. Mr. Vishwnath Tamrakar - Member
    Asst. Prof. and Head, Sant Guru Ghasidas Govt. PG College, Kurud, Pt.
    Ravishankar Shukla University, Raipur
11. Ms. Anjeeta Kujur - Member
    Asst. Prof. and Head, Govt. R.B.R.N.E.S. PG College, Jashpur Sant Gahira (Present Online)
    Guru University Sarguja, Ambikapur
12. Mr. Suresh Kumar Thakur - Member
    Asst. Prof. and Head, Indira Gandhi Govt. PG College, Vaishali Nagar (Present Online)
    Hemchand Yadav Vishwavidyalaya, Durg

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

13. Dr. Ugrasen Suman - Member
Prof. and Head, Dept. of Computer Science
Devi Ahila Vishwavidyalaya, Indore

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

Part A: Introduction				
Program: **Diploma Course**		Class: **B.A. (CA) II Year**	Year: **2022**	Session: **2022-2023**
1	Course Code	**BACA-2P**		
2	Course Title	**LAB 2: Programming in C++**		
3	Course Type	**Practical**		
4	Pre-requisite (if any)	Theoretical knowledge of C++		
5	Course Learning Outcomes (CLO)	At the end of course, Students will be able to: • Understand the fundamental programming concepts and methodologies which are essential to create good C++ programs. • Code, test, and implement a well-structured, robust computer program using the C++ programming language. • Write reusable modules (collections of functions). • Understand design/implementation issues involved with variable allocation and binding, control flow, types, subroutines, parameter passing. • Develop an in-depth understanding of functional, logic, and object-oriented programming paradigms.		
6	**Credit Value**	**Practical: 2**		
7	**Total Marks**	**Max. Marks: 50**	**Min Passing Marks : 17**	

Part B: Content of the Course	
Total Periods: 30	
Tentative Practical List	**Note:** This is tentative list; the teachers concern can add more program as per requirement. 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 in C++ for swapping of two numbers using pointer. 10. Write a program in C++ to make a text file using file handling. 11. Write a program to count word, space and lines in a text file. 12. Write a program to demonstrate work of calloc(). 13. Write a program to demonstrate work of malloc(), realloc() and free(). 14. Write a program in C++ to find the sum and average of five numbers using class and objects. 15. Write a program in C++ to multiply two numbers using private and public member functions. 16. Write a program in C++ to print structure like this using scope resolution operator 1 1 2 1 2 3 1 2 3 4

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

	1 2 3 4 5 17. Write a program in C++ for constructor and Destructor. 18. Write a program in C++ for multiple inheritance. 19. Write a program in C++ for operator overloading. 20. Write a program in C++ for friend class and friend function. 21. Write a program in C++ for virtual function and virtual class. 22. Write a program in C++ for Exception Handling. 23. Write a program in C++ to open and close a file using file Handling. 24. Given two ordered arrays of integers, write a program to merge the two-arrays to get an ordered array. 25. WAP to display Fibonacci series (i) using recursion, (ii) using iteration 26. WAP to calculate Factorial of a number (i) using recursion, (ii) using iteration 27. WAP to calculate GCD of two numbers (i) with recursion (ii) without recursion. 28. Create Matrix class using templates. Write a menu-driven program to perform following Matrix Operations (2-D array implementation): a) Sum b) Difference c) Product d) Transpose 22. Create the Person class. Create some objects of this class (by taking information from the user). Inherit the class Person to create two classes Teacher and Student class. Maintain the respective information in the classes and create, display and delete objects of these two classes (Use Runtime Polymorphism). 29. Create a class Triangle. Include overloaded functions for calculating area. Overload assignment operator and equality operator. 30. Create a class Box containing length, breath and height. Include following methods in it: a) Calculate surface Area b) Calculate Volume c) Increment, Overload ++ operator (both prefix & postfix) d) Decrement, Overload -- operator (both prefix & postfix) e) Overload operator == (to check equality of two boxes), as a friend function f) Overload Assignment operator g) Check if it is a Cube or cuboid Write a program which takes input from the user for length, breath and height to test the above class. 31. Create a structure Student containing fields for Roll No., Name, Class, Year and Total Marks. Create 10 students and store them in a file. 32. Write a program to retrieve the student information from file created in previous question and print it in following format: Roll No. Name Marks 33. Copy the contents of one text file to another file, after removing all whitespaces. 34. Write a function that reverses the elements of an array in place. The function must accept only one pointer value and return void. 35. Write a program for exception handling.

Part C - Learning Resources

Text Books, Reference Books, Other Resources

Suggested Readings:

1. Program Design, Peter Juliff, PHI Publications.
2. Let us C: Yashwant Kanetkar, BPB Publications.
3. Programming in ANSI C , E. Balaguruswamy, Tata McGraw Hill
4. Let us C++ ,Y. Kanetkar, B.P.B Publication.
5. Programming in C++, E. Balaguruswamy, Tata McGraw Hill.

E Resources:

1. Introduction from SWAYAM/NPTEL
   https://onlinecourses.nptel.ac.in/noc19_cs38/preview
   https://onlinecourses.nptel.ac.in/noc22_cs103/preview

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

https://www.youtube.com/watch?v=KG4hjVDw-p8&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=2

2. Constant and Inline Function
https://www.youtube.com/watch?v=pX6LufLso2M&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=10
3. Pointer and Reference
https://www.youtube.com/watch?v=GtsBZ5e1-cE&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=12
4. Function Overloading
https://www.youtube.com/watch?v=uJGmGAShHeU&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=13
5. Operator Overloading
https://www.youtube.com/watch?v=0jpOwe4d-FE&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=17
6. Dynamic Memory Management
https://www.youtube.com/watch?v=lkFK2X6qIc0&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=18
7. Class and Object
https://www.youtube.com/watch?v=wtuks_f3vP4&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=24
8. Access Specifiers
https://www.youtube.com/watch?v=6ki_W7cXdM0&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=22
9. Constructor and Destructor
https://www.youtube.com/watch?v=wtuks_f3vP4&list=PLmp4ylk-B4KrM9uOEdvPIVFUkU3jNc6D2&index=24
10. C different topics from W3School
https://www.w3schools.com/c/
11. C++ different topics from W3School
https://www.w3schools.com/CPP/default.asp
12. C different topics from Javatpoint
https://www.javatpoint.com/c-programming-language-tutorial
13. C++ different topics from Javatpoint
https://www.javatpoint.com/cpp-tutorial
14. https://siiet.ac.in/wp-content/uploads/2020/02/C-LAB-MANUAL-II-CSE-I-SEM.pdf
15. http://biet.ac.in/pdfs/C++%20LAB%20MANUAL.pdf
16. https://www.ctae.ac.in/images/editorFiles/file/Lab%20Solutions%20of%20CSE_IT/C++%20Lab%20Maual.pdf
17. https://mrcet.com/downloads/digital_notes/HS/OOP%20LAB%20MANUAL%202018-19.pdf
18. http://cs.uok.edu.in/Files/79755f07-9550-4aeb-bd6f-5d802d56b46d/Custom/LAB_MANUAL.pdf
19. http://sreevahini.edu.in/pdf/oops.pdf

Part D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:
Maximum Marks: 50
Continuous Comprehensive Evaluation (CCE): As per rule
University Exam(UE): 50 Marks

Internal Assessment: Continuous Comprehensive Evaluation (CCE)	Class Test/Assignment/Presentation	As per rule

06.07.022

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

Declaration

The syllabus of this subject is framed as per the TOR provided by the department of higher education, Chhattisgarh.

1.	Dr. H.S. Hota Prof. and Head, Department of Computer Science and Application Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur	- Chairman
2.	Dr. Sanjay Kumar Prof. and Head, SoS in Computer Science, Pt. Ravishankar Shukla University, Raipur	- Member (Present Online)
3.	Mr. Jitendra Kumar Asst. Prof., Dept. of Computer Science and Application Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur	- Member
4.	Mr. H.S.P. Tonde Asst. Prof. and Head, Dept. of Computer Science, Sant Gahira Guru University Sarguja, Ambikapur	- Member (Present Online)
5.	Dr. Mamta Singh Asst. Prof. and Head, Sai College, Bhilai Hemchand Yadav Vishwavidyalaya, Durg	- Member (Present Online)
6.	Mr. Sushil Kumar Sahu Asst. Prof. and Head, Christ College, Jagdalpur Shaheed Mahendra Karma Vishwavidyalaya, Bastar	- Member (Present Online)
7.	Mr. Vikrant Gupta Prof. and Head, Batmul Ashram College, Salheana Shaheed Nand Kumar Patel University, Raigarh	- Member (Present Online)
8.	Mr. L.K. Gavel Asst. Prof. and Head, Govt. Ghanshyam Singh Gupt, PG College, Balod Hemchand Yadav Vishwavidyalaya, Durg	- Member (Present Online)
9.	Dr. Anil Kumar Sharma Asst. Prof. and Head, A.P.S.G.M.N.S, Govt. PG College, Kawardha Hemchand Yadav Vishwavidyalaya, Durg	- Member (Present Online)
10.	Mr. Vishwnath Tamrakar Asst. Prof. and Head, Sant Guru Ghasidas Govt. PG College, Kurud, Pt. Ravishankar Shukla University, Raipur	- Member
11.	Ms. Anjeeta Kujur Asst. Prof. and Head, Govt. R.B.R.N.E.S. PG College, Jashpur Sant Gahira Guru University Sarguja, Ambikapur	- Member (Present Online)
12.	Mr. Suresh Kumar Thakur Asst. Prof. and Head, Indira Gandhi Govt. PG College, Vaishali Nagar Hemchand Yadav Vishwavidyalaya, Durg	- Member (Present Online)
13.	Dr. Ugrasen Suman Prof. and Head, Dept. of Computer Science Devi Ahila Vishwavidyalaya, Indore	- Member

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

Part A: Introduction				
Program: **Degree Course**		Class: **B.A. (CA) III Year**	Year: **2022**	Session:**2022-2023**
1.	Course Code	**BACA-5T**		
2.	Course Title	**Web Technology**		
3.	Course Type	**Theory**		
4.	Pre-requisite (if any)	Basic understanding of programming concepts and programming language		
5.	Course Learning. Outcomes (CLO)	At the end of this course, the students will be able to: • Create applications using HTML, CSS and Java Script. • Understand fundamental tools and technologies for web design. • Specify design rules in constructing web pages and sites. • Understand how Web pages are designed and created. • Design console-based GUI based and Web based application. • Front end designing using html, CSS, java script and bootstrap.		
6.	**Credit Value**	**Theory: 4**		
7.	**Total Marks**	**Max. Marks: 50**	**Min Passing Marks : 17**	

Part B: Content of the Course		
Total Periods: 60		
Unit	**Topics**	**No. of Periods**
I	**Introduction:** Overview of Intranet, Extranet, Internet and WWW, WWW vs. Internet, Web page, Web browsers, HTTP, URL, Hypertext, Web server, Tools for web site development, hosting options and domain name registration, TCP/IP model.	12
II	**Markup language:** Introduction, DTD, Creating Web pages, Headings, Paragraphs, Lists, Hyperlinks, Tables, Web forms, Input Types, Input Attributes, Inserting images, Frames, Basics of DHTML, XML , XHTML. **Web Development:** CSS-Introduction, Syntax, measurement units, colors, Backgrounds, Font, Text, position, Align, Images, Link, Table, List, Padding.	12
III	**JavaScript:** Overview, syntax, Variables, Operators, Decision control statement, Looping statement, JavaScript functions, Java script Events, Cookies, Page Redirect, and Validation.	12
IV.	**Bootstrap:** Introduction, Grid system, typography, tables, images, dropdowns, jumbotron, them, template and forms.	12
V.	**PHP:** Introduction, syntax, variables, operators, functions, include, get method, post method, cookies, session, PHP form validation, exception.	12
Keywords: Intranet, Extranet, World Wide Web (WWW), Hypertext Markup Language (HTML), Cascading Style Sheet (CSS), JavaScript, BootStrap, PHP.		

Part C: Learning Resources
Text Books, Reference Books, Other Resources
Suggested Readings: 1. Internet and Internet Engineering, Daniel Minoli, TMH (Latest Edition) 2. Java Script, Gosslin, Vikas (Latest Edition) 3. HTML The Definite Guide, Chuck musiano& Bill Kenndy, O Reilly (Latest Edition).

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

E Resources:

1. https://www.w3schools.com/html/default.asp
2. https://www.javatpoint.com/html-tutorial
3. https://www.w3schools.com/css/default.asp
4. https://www.w3schools.com/js/default.asp
5. https://www.w3schools.com/php/
6. https://www.javatpoint.com/php-tutorial
7. https://www.javatpoint.com/laravel
8. https://www.w3schools.com/bootstrap/bootstrap_ver.asp
9. Introduction to web-app: https://www.youtube.com/watch?v=lZnp3tRRTzw&list=PLJ5C_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=22
10. Building web-app: https://www.youtube.com/watch?v=kIEn4LqAQlE&list=PLJ5C_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=3
11. Introduction to Java Script: https://www.youtube.com/watch?v=fRbP92oScp0&list=PLJ5C_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=10
12. Introduction to Web Technology: https://www.w3schools.com/
13. https://www.jnec.org/labmanuals/cse/se/sem1/HTML-SY-PART-I.pdf
14. https://www.jnec.org/labmanuals/mca/fe/sem1/lab_manual_WTL-FYMCA-MGMU.pdf
15. https://jecassam.ac.in/wp-content/uploads/2021/01/WEB_manual.pdf
16. https://mrcet.com/pdf/Lab%20Manuals/WT%20LAB%20MANUAL.pdf
17. https://www.dbit.ac.in/cse/syllabus/web-technology-lab.pdf
18. http://jnnce.ac.in/jnndemo/csedept/materials/labmanual-cbcs-WTALAB-15CSL77.pdf
19. http://web.uettaxila.edu.pk/CMS/AUT2011/seITCbs/labs%5CLab%20Manual%2011.pdf
20. https://www.iare.ac.in/sites/default/files/lab1/IARE_WT_LAB_MANUAL.pdf
21. http://iotmumbai.bharatividyapeeth.edu/media/pdf/lab_manuals/Manual_CM2I_WPD_22014_120421.pdf
22. http://iotmumbai.bharatividyapeeth.edu/media/pdf/lab_manuals/22619_Web_based_application_development_using_PHP_120421.pdf
23. https://daxinimehul321.files.wordpress.com/2014/11/php-lab-manual.pdf

Part D: Assessment and Evaluation		
Suggested Continuous Evaluation Methods: Maximum Marks: 50 Continuous Comprehensive Evaluation (CCE): As per rule University Exam(UE): 50 Marks		
Internal Assessment: Continuous Comprehensive Evaluation (CCE)	Class Test/Assignment/Presentation	As per rule

Declaration

The syllabus of this subject is framed as per the TOR provided by the department of higher education, Chhattisgarh.

1. Dr. H.S. Hota - Chairman
   Prof. and Head, Department of Computer Science and Application
   Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur
2. Dr. Sanjay Kumar - Member
   Prof. and Head, SoS in Computer Science, (Present Online)

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

Pt. Ravishankar Shukla University, Raipur

3. Mr. Jitendra Kumar - Member
Asst. Prof., Dept. of Computer Science and Application
Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur

4. Mr. H.S.P. Tonde - Member
Asst. Prof. and Head, Dept. of Computer Science, Sant Gahira Guru University Sarguja, Ambikapur (Present Online)

5. Dr. Mamta Singh - Member
Asst. Prof. and Head, Sai College, Bhilai Hemchand Yadav Vishwavidyalaya, Durg (Present Online)

6. Mr. Sushil Kumar Sahu - Member
Asst. Prof. and Head, Christ College, Jagdalpur Shaheed Mahendra Karma Vishwavidyalaya, Bastar (Present Online)

7. Mr. Vikrant Gupta - Member
Prof. and Head, Batmul Ashram College, Salheana Shaheed Nand Kumar Patel University, Raigarh (Present Online)

8. Mr. L.K. Gavel - Member
Asst. Prof. and Head, Govt. Ghanshyam Singh Gupt, PG College, Balod Hemchand Yadav Vishwavidyalaya, Durg (Present Online)

9. Dr. Anil Kumar Sharma - Member
Asst. Prof. and Head, A.P.S.G.M.N.S, Govt. PG College, Kawardha Hemchand Yadav Vishwavidyalaya, Durg (Present Online)

10. Mr. Vishwnath Tamrakar - Member
Asst. Prof. and Head, Sant Guru Ghasidas Govt. PG College, Kurud, Pt. Ravishankar Shukla University, Raipur

11. Ms. Anjeeta Kujur - Member
Asst. Prof. and Head, Govt. R.B.R.N.E.S. PG College, Jashpur Sant Gahira Guru University Sarguja, Ambikapur (Present Online)

12. Mr. Suresh Kumar Thakur - Member
Asst. Prof. and Head, Indira Gandhi Govt. PG College, Vaishali Nagar Hemchand Yadav Vishwavidyalaya, Durg (Present Online)

13. Dr. Ugrasen Suman - Member
Prof. and Head, Dept. of Computer Science
Devi Ahila Vishwavidyalaya, Indore

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

Part A: Introduction				
Program: Degree Course		Class: B.A. (CA) III Year	Year: 2022	Session:2022-2023
1	Course Code	BACA-6T		
2	Course Title	E-Commerce		
3	Course Type	Theory		
4	Pre-requisite (if any)			
5	Course Learning. Outcomes (CLO)	At the end of this course, the students will be able to • Understand the concept of E-commerce and its technology. • Understand the concept of security and encryption. • Understand the concept of e-payment system. • Understand the concept of online transaction system. • Understand the concept of Digital marketing.		
6	**Credit Value**	**Theory: 4**		
7	**Total Marks**	**Max. Marks: 50**	**Min Passing Marks: 17**	

Part B: Content of the Course Total Periods: 60		
Unit	**Topics**	**No. of Periods**
I	**Introduction of E-Commerce:** Meaning, nature, concepts, advantages, disadvantages and reasons for transacting online, types of E-Commerce, e-commerce business models (introduction ; key elements of a business model and categorizing major E-commerce business models), forces behind ecommerce. **Technology used in E-commerce:** The dynamics of world wide web and internet (meaning, evolution and features); Designing, building and launching e-commerce website (A systematic approach involving decisions regarding selection of hardware, software, outsourcing vs. in-house development of a website).	12
II	**Security and Encryption:** Need and concepts, the e-commerce security environment: (dimension, definition and scope of e-security), security threats in the E-commerce environment (security intrusions and breaches, attacking methods like hacking, sniffing, cyber-vandalism etc.), technology solutions (Encryption, security channels of communication, protecting networks and protecting servers and clients).	12
III	**E-payment System**: Models and methods of e–payments (Debit Card, Credit Card, Smart Cards, e-money, UPI payment), digital signatures (procedure, working and legal position), payment gateways, online banking (meaning, concepts, importance, electronic fund transfer, automated clearing house, automated ledger posting), risks involved in e-payments.	12
IV	**On-line Business Transactions:** Meaning, purpose, advantages and disadvantages of transacting online, E-commerce applications in various industries like banking, insurance, payment of utility bills, online marketing, e-tailing (popularity, benefits, problems and features), online services (financial, travel and career), auctions, online portal, online learning, publishing and entertainment, Online shopping.	12
V	**Digital marketing overview**: what is Digital Marketing, traditional marketing vs. Digital Marketing, understanding traffic, categorization of digital marketing for the business, Legal and Ethical issues, search engine optimization (SEO)- on page optimization, off page optimization. Goals: learn how to use dozens of proven digital marketing strategies.	12
Keywords: E-commerce, Debit card, Credit card, e- security, UPI, Digital Marketing.		

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

Part C - Learning Resource
Text Books, Reference Books, Other Resources

Suggested Readings:

Text Books:

1. E-Commerce : Business, Technology, Society, Kenneth C. Laudon, Pearson, 4th Edition
2. E-Commerce: an Indian perspective, S. J. Joseph, PHI
3. Digital Marketing for Dummies, Ryan Deiss, Russ Henneberry, John Wiley & Sons.
4. Digital Marketing, AhujaVandana, Oxford University Press.

E-Resources:

1. **E-Commerce:**
   https://www.tutorialspoint.com/e_commerce/index.htm
2. **Digital Marketing:**
   https://www.tutorialspoint.com/digital_marketing/index.htm

Part D: Assessment and Evaluation		
Suggested Continuous Evaluation Methods: Maximum Marks: 50 Continuous Comprehensive Evaluation (CCE): As per rule University Exam(UE): 50 Marks		
Internal Assessment: Continuous Comprehensive Evaluation (CCE)	Class Test/Assignment/Presentation	As per rule

Declaration

The syllabus of this subject is framed as per the TOR provided by the department of higher education, Chhattisgarh.

1. Dr. H.S. Hota - Chairman
   Prof. and Head, Department of Computer Science and Application
   Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur
2. Dr. Sanjay Kumar - Member
   Prof. and Head, SoS in Computer Science, (Present Online)
   Pt. Ravishankar Shukla University, Raipur
3. Mr. Jitendra Kumar - Member
   Asst. Prof., Dept. of Computer Science and Application
   Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur
4. Mr. H.S.P. Tonde - Member
   Asst. Prof. and Head, Dept. of Computer Science, Sant Gahira Guru (Present Online)
   University Sarguja, Ambikapur
5. Dr. Mamta Singh - Member
   Asst. Prof. and Head, Sai College, Bhilai Hemchand Yadav (Present Online)
   Vishwavidyalaya, Durg
6. Mr. Sushil Kumar Sahu - Member
   Asst. Prof. and Head, Christ College, Jagdalpur Shaheed Mahendra Karma (Present Online)
   Vishwavidyalaya, Bastar
7. Mr. Vikrant Gupta - Member
   Prof. and Head, Batmul Ashram College, Salheana Shaheed Nand Kumar (Present Online)
   Patel University, Raigarh
8. Mr. L.K. Gavel - Member
   Asst. Prof. and Head, Govt. Ghanshyam Singh Gupt, PG College, Balod (Present Online)
   Hemchand Yadav Vishwavidyalaya, Durg

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

9.	Dr. Anil Kumar Sharma Asst. Prof. and Head, A.P.S.G.M.N.S, Govt. PG College, Kawardha Hemchand Yadav Vishwavidyalaya, Durg	- Member (Present Online)
10.	Mr. Vishwnath Tamrakar Asst. Prof. and Head, Sant Guru Ghasidas Govt. PG College, Kurud, Pt. Ravishankar Shukla University, Raipur	- Member
11.	Ms. Anjeeta Kujur Asst. Prof. and Head, Govt. R.B.R.N.E.S. PG College, Jashpur Sant Gahira Guru University Sarguja, Ambikapur	- Member (Present Online)
12.	Mr. Suresh Kumar Thakur Asst. Prof. and Head, Indira Gandhi Govt. PG College, Vaishali Nagar Hemchand Yadav Vishwavidyalaya, Durg	- Member (Present Online)
13.	Dr. Ugrasen Suman Prof. and Head, Dept. of Computer Science Devi Ahila Vishwavidyalaya, Indore	- Member

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

Part A: Introduction				
Program: **Degree Course**		Class: **B.A. (CA) III Year**	Year: **2022**	Session: **2022-2023**
1.	Course Code	**BACA-3P**		
2.	Course Title	**LAB 3: Web Technology**		
3.	Course Type	**Practical**		
4.	Pre-requisite (if any)	Theoretical knowledge of HTML, CSS and JavaScript.		
5.	Course Learning Outcomes (CLO)	At the end of course, Students will be able to: • Develop web-based application. • Develop front end application using front end technologies. • Demonstrate the principles of object-oriented programming. • Create multi-threaded programs and event handling mechanisms • Develop simple GUI interfaces for a computer program to interact with users. • Use form validation on web page. • Develop server-based application using Servlet and JSP.		
6.	**Credit Value**	**Practical: 2**		
7.	**Total Marks**	**Max. Marks: 50**	**Min Passing Marks : 17**	

Part B: Content of the Course	
Total Periods: 30	
Tentative Practical List	**Note:** This is tentative list; the teachers concern can add more program as per requirement. 1. Create a table to show your class time table. 2. Use tables to provide layout to your HTML page describing your college infrastructure. 3. Use and tags to provide a layout to the above page instead of a table layout. 4. Use frames such that page is divided into 3 frames 20% on left to show contents of pages, 60% in center to show body of page, remaining on right to show remarks. 5. Embed Audio and Video into your HTML web page. 6. Design a Login Page by using HTML and CSS. 7. Write a program to perform validation on web page. 8. Design a web page to demonstrate registration form of student. 9. Design a from by using HTML and CSS who will take input from the user through Java-script Function and check weather it is integer or not. 10. Design a device friendly web page which should be able to resize the display depending on the device by using bootstrap. 11. Write a program to design a simple calculator using JavaScript. 12. Write a JavaScript that calculates the squares and cubes of the numbers from 0 to 10 and outputs HTML text that displays the resulting values in an HTML table format. 13. Write a JavaScript code that displays text "TEXT-GROWING" with increasing font size in the interval of 100ms in RED COLOR, when the font size reaches 50pt it displays "TEXT-SHRINKING" in BLUE color. Then the font size decreases to 5pt. 14. Develop and demonstrate a HTML5 file that includes JavaScript script that uses functions for the following problems: a) **Parameter:** A string **Output:** The position in the string of the left-most vowel

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

	b) **Parameter:** A number **Output**: The number with its digits in the reverse order 15. Installation of XAMPP and WAMP servers.

Part C: Learning Resources

Text Books, Reference Books, Other Resources

Suggested Readings:

1. Internet and Internet Engineering, Daniel Minoli, TMH (Latest Edition)
2. Java Script, Gosslin, Vikas (Latest Edition)
3. HTML The Definite Guide, Chuck musiano& Bill Kenndy, O Reilly (Latest Edition).

E Resources:

1. https://www.w3schools.com/html/default.asp
2. https://www.javatpoint.com/html-tutorial
3. https://www.w3schools.com/css/default.asp
4. https://www.w3schools.com/js/default.asp
5. https://www.w3schools.com/php/
6. https://www.javatpoint.com/php-tutorial
7. https://www.javatpoint.com/laravel
8. https://www.w3schools.com/bootstrap/bootstrap_ver.asp
9. Introduction to web-app: https://www.youtube.com/watch?v=lZnp3tRRTzw&list=PLJ5C_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=22
10. Building web-app: https://www.youtube.com/watch?v=klEn4LqAQlE&list=PLJ5C_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=3
11. Introduction to Java Script: https://www.youtube.com/watch?v=fRbP92oScp0&list=PLJ5C_6qdAvBEJ6-TBzKoa1Ov21lwDzJfM&index=10
12. Introduction to Web Technology: https://www.w3schools.com/
13. https://www.jnec.org/labmanuals/cse/se/sem1/HTML-SY-PART-I.pdf
14. https://www.jnec.org/labmanuals/mca/fe/sem1/lab_manual_WTL-FYMCA-MGMU.pdf
15. https://jecassam.ac.in/wp-content/uploads/2021/01/WEB_manual.pdf
16. https://mrcet.com/pdf/Lab%20Manuals/WT%20LAB%20MANUAL.pdf
17. https://www.dbit.ac.in/cse/syllabus/web-technology-lab.pdf
18. http://jnnce.ac.in/jnndemo/csedept/materials/labmanual-cbcs-WTALAB-15CSL77.pdf
19. http://web.uettaxila.edu.pk/CMS/AUT2011/selTCbs/labs%5CLab%20Manual%2011.pdf
20. https://www.iare.ac.in/sites/default/files/lab1/IARE_WT_LAB_MANUAL.pdf
21. http://iotmumbai.bharatividyapeeth.edu/media/pdf/lab_manuals/Manual_CM2I_WPD_22014_120421.pdf
22. http://iotmumbai.bharatividyapeeth.edu/media/pdf/lab_manuals/22619_Web_based_application_development_using_PHP_120421.pdf
23. https://daxinimehul321.files.wordpress.com/2014/11/php-lab-manual.pdf

Part D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:

Maximum Marks: 50

Continuous Comprehensive Evaluation (CCE): As per rule

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

University Exam(UE): 50 Marks		
Internal Assessment: Continuous Comprehensive Evaluation (CCE)	Class Test/Assignment/Presentation	As per rule

Declaration

The syllabus of this subject is framed as per the TOR provided by the department of higher education, Chhattisgarh.

1. Dr. H.S. Hota - Chairman
   Prof. and Head, Department of Computer Science and Application
   Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur
2. Dr. Sanjay Kumar - Member
   Prof. and Head, SoS in Computer Science,
   Pt. Ravishankar Shukla University, Raipur (Present Online)
3. Mr. Jitendra Kumar - Member
   Asst. Prof., Dept. of Computer Science and Application
   Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur
4. Mr. H.S.P. Tonde - Member
   Asst. Prof. and Head, Dept. of Computer Science, Sant Gahira Guru University Sarguja, Ambikapur (Present Online)
5. Dr. Mamta Singh - Member
   Asst. Prof. and Head, Sai College, Bhilai Hemchand Yadav Vishwavidyalaya, Durg (Present Online)
6. Mr. Sushil Kumar Sahu - Member
   Asst. Prof. and Head, Christ College, Jagdalpur Shaheed Mahendra Karma Vishwavidyalaya, Bastar (Present Online)
7. Mr. Vikrant Gupta - Member
   Prof. and Head, Batmul Ashram College, Salheana Shaheed Nand Kumar Patel University, Raigarh (Present Online)
8. Mr. L.K. Gavel - Member
   Asst. Prof. and Head, Govt. Ghanshyam Singh Gupt, PG College, Balod Hemchand Yadav Vishwavidyalaya, Durg (Present Online)
9. Dr. Anil Kumar Sharma - Member
   Asst. Prof. and Head, A.P.S.G.M.N.S, Govt. PG College, Kawardha Hemchand Yadav Vishwavidyalaya, Durg (Present Online)
10. Mr. Vishwnath Tamrakar - Member
    Asst. Prof. and Head, Sant Guru Ghasidas Govt. PG College, Kurud, Pt. Ravishankar Shukla University, Raipur
11. Ms. Anjeeta Kujur - Member
    Asst. Prof. and Head, Govt. R.B.R.N.E.S. PG College, Jashpur Sant Gahira Guru University Sarguja, Ambikapur (Present Online)
12. Mr. Suresh Kumar Thakur - Member
    Asst. Prof. and Head, Indira Gandhi Govt. PG College, Vaishali Nagar

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >

Hemchand Yadav Vishwavidyalaya, Durg (Present Online)

13. Dr. Ugrasen Suman - Member
Prof. and Head, Dept. of Computer Science
Devi Ahila Vishwavidyalaya, Indore

Join our WhatsApp Channel for FREE Question Papers, Syllabus & Exam Updates
More papers: cguniversities.com | Tap here to join
JOIN NOW >