



**छत्तीसगढ़ युवा विकास संगठन शिक्षण समिति द्वारा संचालित**

(उच्च शिक्षा विभाग से मान्यता प्राप्त एवं पं. रविशंकर शुक्ल विश्वविद्यालय से स्थायी संबन्ध)

**विप्र कला वाणिज्य एवं शारीरिक शिक्षा महाविद्यालय**

जी.ई. रोड, रायपुर (छ.ग.)

E-Mail [vipracollege1996@gmail.com](mailto:vipracollege1996@gmail.com)

Visit on- [www.vipracollege.org](http://www.vipracollege.org)

पंजीयन क्रं.-17951

Phone No.-9406082000

## 2.3 - Teaching- Learning Process

**2.3.1 - Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences**

Principal

Dr. Meghesh Tiwari

Vipra Kala, Vanijya Avam

Sharirik Shiksha Mahavidyalaya

Raipur, Chhattisgarh

प्राचार्य

विप्र कला, वाणिज्य एवं शारीरिक  
शिक्षा महाविद्यालय, रायपुर छ.ग.



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### विप्रा कला वाणिज्य एवं शारीरिक शिक्षा महाविद्यालय

पं. एचिबंकर विश्वविद्यालय परिसर के बाजू, दूसर तालाब, रायपुर (छ.ग.)

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संपर्क नं. 9406062000

संजीवन क्र.-17981

क्रमांक : /वि.म./अका./2023

दिनांक :- 14/01/2023

S.NO	NAME	CLASS	PROJECT TITLE
1	UMESH YADAV	BCA III	ADMISSION (COACHING ) MANAGEMENT
2	SANKALP WASNIK	BCA III	INVENTORY MANAGEMENT
3	RINU BHARGAV	BCA III	CAFE MANAGEMENT
4	ANURAG SINGH THAKUR	BCA III	NOTEPAD
5	NEHA SEN	BCA III	LIBRARY MANAGEMENT
6	PRIYANKA SINHA	BCA III	HOTEL MANAGEMENT
7	MANISH	BCA III	INDIVIDUAL INVENTORY SYSTEM OF STUDENT
8	SUHANI SONI	BCA III	EMPLOY MONITORING MANGMENT SYSTEM
9	RINKI BANJARE	BCA III	BAKESHOP INVENTORY SYSTEM
10	AKASH SAHU	BCA III	TIC TAC TOE GAME,CHECK AND FINALISED
11	DWIVEDULA SUSHMA	BCA III	QUIZ GAME
12	DHANRAJ SAHU	BCA III	CURRENCY CONERTER, CHECK AND FINALISED
13	AKHIL VERMA	BCA III	ROCK,PAPER,SCISSOR GAME ,CHECK AND FINALISED
14	JIVRAKHAN YADAV	BCA III	CHESS GAME
15	KIRAN SAHU	BCA III	BILLING APPLICATION
16	VARUN SAHU PROJECT	BCA III	CALCULATOR IN JAVA LANGUAGE
17	JITENDRA ADIL	BCA III	BOOK SHOP MANAGAMENT
18	AYUSH SHRIVASTAVA	BCA III	FURNITURE STORE MANAGEMENT
19	VINAY SONI	BCA III	MOVIE TICKET BOOKING SYSTEM
20	KIRAN SAHU	BCA III	BILLING APPLICATION ,CHECK AND FINALISED
21	VIVEK SAHANI	BCA III	ELECTRONIC SHOP MANAGEMENT
22	SHANKAR YADU	BCA III	COMPUTER INSTITUTE MANAGEMENT
23	ANURAG SINGH THAKUR	BCA III	NOTEPAD ,CHECK AND FINALISED
24	DUNAY SAHU	BCA III	PASSWORD GENERATOR

Principal

Vipra Ats, Commerce and Physical  
Education College, Raipur(C.G.)



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## विप्र कला वाणिज्य एवं शारीरिक शिक्षा महाविद्यालय

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फ़ोन नं. - 17951

Phone No.-9405082000

### PT. RAVISHANKAR SHUKLA UNIVERSITY: RAIPUR (C.G.)

### SCHOOL OF STUDIES IN COMPUTER SCIENCE

### DIPLOMA IN COMPUTER APPLICATION

[DURATION - ONE YEAR - PART TIME]

The duration of the course shall be one year consisting of two semesters. There shall be three theory and one practical course in the each semester. There shall be grading system of awards.

<b>FIRST SEMESTER:</b>	<b>DCA101</b>	<b>: Essential of Information Technology and OS</b>
	<b>DCA102</b>	<b>: Essentials of Office Automation.</b>
	<b>DCA103</b>	<b>: Programming in 'C' Language</b>
	<b>DCA104</b>	<b>: Practical based on DCA102 &amp; DCA103.</b>

<b>Second Semester -</b>	<b>DCA105</b>	<b>: GUI - Programming in Visual Basic.</b>
	<b>DCA106</b>	<b>: E- Commerce</b>
	<b>DCA107</b>	<b>: HTML &amp; Internet Applications.</b>
	<b>DCA108</b>	<b>: Practical based on DCA105 &amp; DCA107.</b>



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## विप्र कला वाणिज्य एवं शारीरिक शिक्षा महाविद्यालय

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### B.Sc. III 2023-24

#### PRACTICALS :

1. Descriptions on Oracle :  
At least 20 questions covering the SQL, PL/SQL, Triggers, Views.
2. Questions on Visual Basic :  
At least 20 questions on VB that covering basic and data controls components.





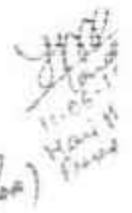





### B.Sc. II 2023-24

#### PRACTICAL WORK

1. The sufficient practical work should be done for understanding the paper.
2. At least five programs on each unit from unit 2 to unit 5 be prepared.
3. All practical works should be prepared in form of print outs and be validated with practical demonstration.



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B.Sc. I 2023-24

### Practical

- At least 20 Practical based on Syllabus of Paper-I and Paper-II.

*Ramesh*  
11/05/18  
(Dr. Sanyal)

*Anil*  
11/05/18  
(Dr. A.K. Rai)

*Ganesh*  
11/05/18  
(Dr. Sanyal)

*Dr. J.B. Singh*  
11/05/18  
(Dr. J.B. Singh)

*Dr. Sanyal*  
11-05-18  
Have the near Prasad Tondle





## छत्तीसगढ़ युवा विकास संगठन शिक्षण समिति द्वारा संचालित

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### प्रपत्र

विषय/संकाय/प्रश्न-पत्र का नाम- **B.Sc. Computer Science 2023-24**

क्रमांक	कक्षा का नाम	वर्तमान पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम का औचित्य
1.	1 <sup>st</sup> Year	COMPUTER HARDWARE	COMPUTER FUNDAMENTAL	Updation Required
2.	1 <sup>st</sup> Year	COMPUTER SOFTWARE	PROGRAMMING IN 'C' LANGUAGE	Updation Required
3.	1 <sup>st</sup> Year	PRACTICAL	PRACTICAL	Updation Required
4.	2 <sup>nd</sup> Year	COMPUTER HARDWARE	COMPUTER HARDWARE	No Change
5.	2 <sup>nd</sup> Year	COMPUTER SOFTWARE	COMPUTER SOFTWARE	No Change
6.	2 <sup>nd</sup> Year	PRACTICAL	PRACTICAL	No Change
7.	3 <sup>rd</sup> Year	COMPUTER HARDWARE	COMPUTER HARDWARE	No Change
8.	3 <sup>rd</sup> Year	COMPUTER SOFTWARE	COMPUTER SOFTWARE	No Change
9.	3 <sup>rd</sup> Year	PRACTICAL	PRACTICAL	No Change

केन्द्रीय अध्ययन मंडल के अध्यक्ष एवं सदस्यों का हस्ताक्षर

S.N.	Name	Designation/University/College	Signature with Date
1.	Dr. Sanjay Kumar	Head, S.o.S. in Computer Science & I.T., Pt. R.S. University, Raipur	 11/06/18
2.	Mr. Hari Shankar Prasad Tonde	Head, Dept. of Computer Science, Sarguja University, Ambikapur	 11/06/18
3.	Dr. Anuj Kumar Dwivedi	Head, Dept. of Computer Science, Govt. V.B.S.D. Girls College, Jashpur Nagar, Jashpur	 11/06/18
4.	Mr. L.K. Gavel	Head, Dept. of Computer Science, Govt. G.S.G. P.G. College Balod	 11/06/18
5.	Dr. J. Durga Prasad Rao	Head, Dept. of Computer Science, Shri Sankaracharya Mahavidyalaya, Bilai	 11/06/18

**1. Scheme of Examination:-**

Practical examination will be of 3 hours duration. The distribution of practical marks will be as follows

Program 1	-	20
Program 2	-	20
Program 3	-	20
Viva	-	25
[ Practical Copy + Internal Record ]	-	15
<b>Total</b>	-	<b>100</b>

- In every program there should be comment for each coded line or block of code
- Practical file should contain printed programs with name of author, date, path of program, unit no, and printed output.
- All the following programs or a similar type of programs should be prepared

Q.1. Write an HTML program to create the following table:

Class	Subject1	Subject2	Subject3
BCA I	Visual Basic	PC Software	Electronics
BCA II	C++	DBMS	English
BCA III	Java	Multimedia	CSA

Q.2. Write an HTML program to create the following list:

- C
- C++
- Fortran
- COBOL

Q.3. Write an HTML program to create the following list:

- Java
- Visual Basic
- BASIC
- COBOL

Q.4. Write an HTML program to demonstrate hyperlinking between two web pages. Create a marquee and also insert an image in the page.

Q.5. Write an HTML program to create frames in HTML with 3 columns (Width = 30%, 30%, 40%).

Q.6. Write an HTML program to create a web page with a blue background and the following text:

Q.13. Write an HTML program to create a form as the following:

Enter Name:

Enter Roll No.:

Enter Age:

Enter DOB:

Q.14. Write an HTML program to create a web page with an image as background and the following text:

**New Delhi**

New Delhi, the capital and the third largest city of India is a fusion of the ancient and the modern. The remains of the Muslim dynasties with its architectural delights, give the majestic ambience of the bygone era.

On the other side New Delhi, the imperial city built by British, reflect the fast paced present. The most fascinating of all is the character of Delhi which varies from the 13<sup>th</sup> present century mausoleum of the Lodi kings to ultra modern glass skyscrapers.

Q.15. Create the following HTML form.

USERNAME:

PASSWORD:

When user types characters in a password field, the browser displays asterisks or bullets instead of characters.

Q.16. Create the following HTML form.

**New Delhi**  
New Delhi, the capital and the third largest city of India is a fusion of the ancient and the modern. The remains of the Muslim dynasties with its architectural delights, give the majestic ambience of the bygone era.

Q.7. Write an HTML program to create the following table:

Course	GC	BC	MBC	SC/ST	TOTAL
Computer science	9	18	5	1	37
Commerce	14	25	8	3	50
<b>Grand total</b>					<b>87</b>

Q.8. Write an HTML program to create the following table:

Maruti		Tata		Ford	
Model	Price	Model	Price	Model	Price
Maruti 800	2 Lac	Nano	2 Lac	Ikon	5 Lac
Omni	3 Lac	Scorpio	3 Lac	Gen	2 Lac

Q.9. Write an HTML program to create the following table:

Name	Subject	Marks
Arun	Java	70
Ashish	Java	75
	C	60

Q.10. Create an HTML document and embed a flash movie in it.

Q.11. Write the HTML coding to display the following table. Also insert an image in the web page.

Subject	Max	Min	Obtain
Java	100	33	75
Multimedia	100	33	70
Operating System	100	33	68
C++	100	33	73

Q.12. Write the HTML coding to display the following table:

Name	Roll No.	Subject	Max	Min	Obtain
Rahul	101	Java	100	33	75
		Multimedia	100	33	70

*Handwritten signatures: P. Arun, Ashish, C, Java, 75, 70*

FIRSTNAME:

LASTNAME:

GENDER: Male  Female

SUBJECTS:

Q.17. Create the following HTML form.

Enter your name:

Enter your rollno:

Subjects:

Java

C

Visual Basic

C++

Class:

Q.18. Write the HTML coding for the following equations:

$C_1 \cup (B \cap C) = (C_1 \cup B) \cap (C_1 \cup C)$

$(A \cap B) \cup (A \cap C) = A \cap (B \cup C)$

$(A \cup B) \cap (A \cup C) = A \cup (B \cap C)$

Q.19. Write the HTML code to display the following:

- Bruce Willis
- Gerard Butler
- Vin Diesel
- Brad Pitt

*Handwritten signatures: P. Arun, Ashish, C, Java, 75, 70*

37. Write a program to sort a single dimension array of integers of a elements simulated by pointer to integer. Use function for sorting the dynamic array.
38. Write a program to sort elements of a double dimension array of integers of m rows and n columns simulated by pointer to pointer to integer. Use function for sorting the elements of the dynamic array.
39. Write program to demonstrate difference between character array and pointer to character.
40. Write program to demonstrate difference between associated pointer and pointer to constant.
41. Write program to demonstrate pointer arithmetic.
42. Write program to demonstrate function returning pointer.
43. Write program using self-referential pointer to structure to create and print the linked list data structure.

*Done* *Done* *Done* *Done* *Done*

*2*

- (vi) New and Redo actions
- (vii) Go to the end of the document (in one step)
- (viii) Go to the Beginning of document (in one step)
- (ix) Insert page break before the third paragraph.
- (x) Search the word "computer" in your document with options Match case, find whole words only.
- (xi) Replace the word "typewriters" with "word processor"
- (xii) Undo the above action
- (xiii) Reverse All page breaks in your document
- (xiv) Change the magnification of your document to different percentages using menu features.
- (xv) Format the above written paragraphs and give the options as follows:
  - Alignment justified
  - Indentation: left 0.2 right 0.2
  - Spacing: before 6 pt. after: 6 pt.
  - Special first line by - 9.4"
  - Line spacing 1.5 lines
- (xvi) Set the default tab stop to 0.3"
- (xvii) Set the margins to 1.25"
- (xviii) Format the page using
  - a. Left margin: 0.5, right margin: 0.5
  - b. Top margin: 1.5, bottom margin: 0.5
  - c. Gutter Margin: Indentation: left 0.2 right 0.2
  - d. Header Margin: 0.5
- (xix) Format the each occurrence of group of words "Word Processor" as bold, italic, under line and small caps using find and replace with formatting options.
- (xx) Align the heading to Center and make it bold, underlined and italicized.

**File New, Open, Save, Find, Replace, Paragraph Formatting, Character Formatting and Page Formatting**

1. Type the text as show below and perform the tasks as directed!

Computers  
 COMPUTER is an electronic device that processes data and gives meaningful information. Computers are being used in almost all the fields today.  
 EXPERT SYSTEMS  
 HUMAN THINKING AND ARTIFICIAL INTELLIGENCE  
 Can computer think?  
 AI at work Today: Natural Language programs and Expert Systems.  
 THE IMPACT OF COMPUTERS ON PEOPLE  
 The Positive Impact  
 The Potential Dangers  
 THE IMPACT OF COMPUTERS ON ORGANIZATIONS  
 The information Processing Industry  
 The Positive impact on Using Organizations  
 The Potential Dangers for Using Organizations

1. Search for the word "Computer" in the entire document. All the occurrences of the given word are to be searched irrespective of the case.

*Done* *Done* *Done* *Done* *Done*

**BCA-108 - LAB II: PC Software Lab**

**I. Scheme of Examination:-**

Practical examination will be of 3 hours duration. The distribution of practical marks is as follows:

Program 1 (MS-Office)	-	10
Program 2 (MS-Office)	-	15
Program 3 (MS-Office)	-	15
Program 4 (Multimedia)	-	15
Viva-Voce	-	25
Practical Copy - Internal Record	-	10
Total	-	100

2. In every program there should be comment for each coded line or block of code.

3. Practical file should contain printed program with name of author, date, path of program, and its and printed output.

4. All the following programs or a similar type of programs should be prepared:

**List of Practical**

**MS-WORD**

File New, Open, Save, Cut, Copy, Paste, Drag Drop, Bullets and Numbering, Undo, Redo, Find, Replace, Paragraph Formatting, Character Formatting and Page Formatting.

1. Open a document. Type the following text and perform the tasks as instructed below:-

**Working with Word Processor**

As already mentioned, a word processor is a package that processes textual matter and creates organized and flawless documents. In addition to it a word processor not only remove all the limitations of typewriter but also offers various useful features that cannot be even dreamt of with typewriter.

Also if some textual matter is to be reproduced with minor changes, retyping the only option is typewriter.

The word processing (and word processor) originated way back in 1964 when special typewriters, Magnetic Tape Scientific typewriters (MST) were launched by IBM (International Business Machines).

- (i) Insert the following text after the first paragraph.
  - The main components of a word processing system are listed below:
    - a. Computer
    - b. Printer
    - c. A word processing software
- (ii) Save the document as 'Word1.doc'
- (iii) Move the second paragraph to the end of the document. Using drag/drop.
- (iv) Move the second paragraph to the end of the document using cut, paste operations.
- (v) Undo the above actions.

*Done* *Done* *Done* *Done* *Done*

2. In the above question note that word also searches "computerization and 'computerisations". Now make sure that first time Word searches only for the word "computer" in the entire document.
3. Change the entire uppercase letter to lowercase.
4. Give a heading to the above written text: "COMPUTERS IN TODAY'S WORLD"
5. Center align the heading text Computer that appears in first line.
6. Apply outside border to entire document.
7. Apply outside border to the just heading text.
8. Change page setup according to the following specifications:
  - Top margin: 1.5", bottom margin: 1.5"
  - Gutter: 1", left margin: 1.5"
  - Right margin: 1"
  - Page width: 7.5", page height: 9.5"
  - Orientation: portrait
9. Give a header "Creation" and footer "The school of computing". The footer should also consist of page no. x.
10. Give appropriate commands for giving different header and footers for first page and odd & even pages.
11. Save and close the document.

3. Write the following equations in MS-Word:  
 $4H_2O + 3H_2PO_4 + PH_3 \rightarrow PCL_3 + CL_2 + PCL_5$       $(x+y)^2 - (x-y)^2 = 2xy$

4. Write the following equations in MS-Word:  
 $C_2H_6OH + PCL_3 \rightarrow C_2H_5CL + POCL_3 + HCL$       $a = \pi r^2$       $a + b = 0$

5. Write the following in MS-Word:

1. Patent the new to 23PF.
2. Copyright ©
3. Registered ®
4. Trademark ™

6. Create the following table in MS-Word:

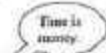
Name	Rahul		
Holl No.	191		
Subject	Max	Min	Obtain
Java	100	33	72
Multimedia	100	33	70

7. Create a document in MS-Word. Set the watermark as Microsoft. Also write the following text as formatted below:

ensuring programming progress by lines of code is like measuring aircraft building progress by weight

—Bill Gates

8. Create the following:



*Done* *Done* *Done* *Done* *Done*



## BCA-107 - LAB 1: Programming Lab in 'C'

### 1. Scheme of Examination:-

Practical examination will be two programs and a project demonstration. It will be of 3 hour duration. All programs should be with flowchart & algorithms. The distribution of practical marks will be as follows:

Program 1	-	20
Program 2	-	20
Program 3	-	20
Viva	-	25
[Practical Copy + Internal Record ]	-	15
Total	-	100

2. Practical file should contain printed programs with name of author, date, path of program, unit no. and printed output.

3. In every program there should be comment for each coded line or block of code

4. All the following programs or a similar type of programs should be prepared

### List of Practical

#### INPUT AND OUTPUT, FORMATTING

1. Write a program in which you declare variable of all data types supported by C language. Get input from user and print the value of each variable with alignment left, right and column width 10. For real numbers print their values with two digits right to the decimal.

#### LOOPS, DECISIONS

2. Write program to print all combination of 1 2 3.

3. Write program to generate following pattern

a) ABCDEFG      c) \*

ABC EFG      \* \*

AB FG      \* \* \*

A G

b) 1      d) 1

1 2      1 2 1

1 2 3      1 3 3 1

1 2 3 4      1 4 6 4 1

4. Write main function using switch...case, if...else and loops which when called asks pattern type; if user enters 11 then first pattern is generated using for loop. If user enters 12 then first pattern is generated using while loop. If user enters 13 then first pattern is generated using do-while loop. If user enters 21 then a second pattern is generated using for loop and so on.

5. Write program to display number 1 to 10 in octal, decimal and hexadecimal system.

6. Write program to display number from one number system to another number system. The program must ask for the number system in which you will input integer value then the program must ask the number system in which you will want output of the input number after that you have to input the number in specified number system and program will give the output according to number system for output you mentioned.

7. Write a program to perform following tasks using switch...case, loops, and conditional operator (as and when necessary).

- Find factorial of a number
- Print fibonacci series up to n terms and its sum.
- Print sin series up to n terms and its sum.
- Print exponential series up to n terms and its sum.
- Print prime numbers up to n terms.
- Print whether a given year is leap or not.

8. Write program no. 6 but use library function to perform above tasks.

#### ARRAY

9. Create a single program to perform following tasks using switch, if...else, loop and single dimension character array without using library function:

- To reverse the string.
- To count the number of characters in string.
- To copy the one string to other string.
- To find whether a given string is palindrome or not.
- To count no. of vowels, consonants in each word of a sentence and no. of punctuation in sentence.
- To arrange the alphabets of a string in ascending order.

10. Create a single program to perform following tasks using switch, if...else, loop and single dimension integer array:

- Sort the elements.
- Search for presence of particular value in array element using linear search.
- Search for presence of particular value in array element using binary search.

11. Write a program that read the afternoon day temperature for each day of the month and then report the month average temperature as well as the days on which hottest and coolest days occurred.

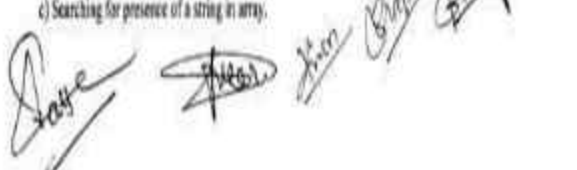
12. Create a single program to perform following tasks using switch, if...else, loop and double dimension integer array of size 3x3:

- Addition of two matrix.
- Subtraction of two matrix.
- Multiplication of two matrix.
- Inverse of matrix.
- Transpose of matrix.
- Sum of diagonal elements.

13. Create a single program to perform following tasks using switch, if...else, loop and double dimension character array of size 5x40:

- Sorting of string.
- Finding the largest string.
- Finding the smallest string.
- Searching for presence of a string in array.





## FUNCTIONS

14. Write program using the function power (a, b) to calculate the value of a raised to b.
15. Write program to demonstrate difference between static and auto variable.
16. Write program to demonstrate difference between local and global variable.
17. Write a program to perform following tasks using switch...case, loops and function.
  - a) Find factorial of a number
  - b) Print Fibonacci series up to n terms and its sum.
  - c) Print Sin series up to n terms and its sum.
  - d) Print exponential series up to n terms and its sum.
18. Write a program to perform following tasks using switch...case, loops and recursive function.
  - a) Find factorial of a number
  - b) Print Fibonacci series up to n terms and its sum.
  - c) Print Sin series up to n terms and its sum.
  - d) Print exponential series up to n terms and its sum.
  - e) Print natural series up to n terms and its sum
19. Write a function to accept 10 characters and display whether each input character is digit, uppercase letter or lower case letter.

## Array & Function

20. Create a single program to perform following tasks using switch, if...else, loop, function and double dimension integer array of size 3x3:
  - a) Addition of two matrix.
  - b) Subtraction of two matrix.
  - c) Multiplication of two matrix.
  - d) Inverse of matrix.
  - e) Transpose of matrix.
21. Create a single program to perform following tasks using switch, if...else, loop, user defined function and single dimension character array:
  - a) To reverse the string.
  - b) To count the number of characters in string.
  - c) To copy the one string to other string.
  - d) To find whether a given string is palindrome or not.
  - e) To count no. of vowels, consonant in each word of a sentence and no. of punctuations in sentence.
22. Create a single program to perform following tasks using switch, if...else, loop, function and single dimension integer array:
  - a) Sort the elements.
  - b) Find largest element and smallest element.
  - c) Search for presence of particular value in array element using linear search.
  - d) Search for presence of particular value in array element using binary search.
23. Create a single program to perform following tasks using switch, if...else, loop, function and double dimension character array of size 5x40:
  - a) Sorting of string
  - b) Finding the largest string, lexicographically.
  - c) Finding the smallest string, lexicographically.
  - d) Searching for presence of string in array.

## STRUCTURE & UNION

24. Create a structure Student having data members to store roll number, name of student, name of three subjects, max marks, min marks, obtained marks. Declare a structure variable of student. Provide facilities to input data in data members and display result of student.
25. Create a structure Date with data member's dd, mm, yy (to store date). Create another structure Employee with data members to hold name of employee, employee id and date of joining (date of joining will be hold by variable of structure Date which appears as data member in Employee Structure). Store data of an employee and print the same.
26. Create a structure Student having data members to store roll number, name of student, name of three subjects, max marks, min marks, obtained marks. Declare array of structure to hold data of 3 students. Provide facilities to display result of all students. Provide facility to display result of specific student whose roll number is given.
27. Write program to create structure complex having data members to store real and imaginary part. Provide following facilities:
  - a) Add two complex nos. using structure variables.
  - b) Subtract two complex nos. using structure variables.
  - c) Multiply two complex nos. using structure variables.
  - d) Divide two complex nos. structure variables.

Use structure as argument to function and function returning structure.

## POINTER

28. Define union Emp having data members-one integer, one float and one single dimension character array. Declare a union variable in main and test the union variable.
29. Define an enumDays of Week members of which will be days of week. Declare an enum variable in main and test it.
30. Write a program of swapping two numbers and demonstrates call by value and call by reference.
31. Write program to sort strings using pointer exchange.
32. Write a program in c using pointer and function to receive a string and a character as argument and return the no. of occurrences of this character in the string.
33. Create a program having pointer to void to store address of integer variable then print value of integer variable using pointer to void. Perform the same operation for float variable.
34. Write program to find biggest number among three numbers using pointer and function.
35. Write program to Create a structure Employee having data members to store name of employee, employee id, salary. Use Pointer to structure to store data of employee and print the stored data-using pointer to structure.
36. Write program to Create a structure Employee having data members to store name of employee, employee id, salary. Use Pointer to structure to simulate dynamic array of structure store data of n employees and print the stored data of n employees using pointer to structure.

*h*  
Dave  
Kun  
Lion  
Bark  
Sqa  
franz

*h*  
Dave  
Kun  
Lion  
Bark  
Sqa  
franz



छत्तीसगढ़ युवा विकास संगठन शिक्षण समिति द्वारा संचालित  
(उच्च शिक्षा विभाग से मान्यता प्राप्त एवं पं. रविशंकर कुल विश्वविद्यालय से स्थायी संबन्ध)  
विप्र कला वाणिज्य एवं शारीरिक शिक्षा महाविद्यालय

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## SCHEME OF EXAMINATION 2023-24

### BCA PART-I

Subject Code	Subject Paper	Theory Marks		Internal Marks		Teaching per Week			Load
		Max. (A)	Min. (B)	Max. (C)	Min. (D)	L	T	P	
BCA101	Discrete Mathematics	80	27	20	8	4	2	-	
BCA102	Computer Fundamentals	80	27	20	8	4	2	-	
BCA103	Programming in 'C' language	80	27	20	8	4	2	-	
BCA104	PC Software and Multimedia	80	27	20	8	4	2	-	
BCA105	Web Technology and E-Commerce	80	27	20	8	4	2	-	
BCA106	Communication skills	80	27	20	8	4	2	-	
BCA107	LAB I: Programming Lab in 'C'	100	50	40	16	-	-	3x2	
BCA108	LAB II: PC Software Lab	100	50	40	16	-	-	2x2	
BCA109	LAB III: Web Technology Lab	100	50	20	8	-	-	1x2	
<b>TOTAL</b>		780	312	220	88				
<b>GRAND TOTAL</b>	(PAPER + INTERNAL)	<b>(A+C)</b> 1000		<b>(B+D)</b> 400					

- Student will have to pass individually in all theory, practical and sessional.

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**PRACTICAL WORK**

**BCA-209 - LAB V: Database Management System Lab**

**1. Scheme of Examination:-**

Practical examination will be of 3 hours duration. The distribution of practical marks will be as follows

Program 1 (Oracle)	-	20
Program 2 (Oracle)	-	20
Program 3 (Oracle)	-	20
Viva	-	25
[ Practical Copy + Practical Sessions]	-	15
<b>Total</b>	-	<b>100</b>

- In every program there should be comment for each coded line or block of code
- Practical file should contain printed programs with name of author, date, path of program, unit no. and printed output
- All the following programs or a similar type of programs should be prepared

**List of Practical**

**1. Using the following database**

- Colleges (college, city, address, phone, affliate)
- Staffs (sll, name, address, contacts)
- StaffDates (sld, name, dept, DOJ, post, salary)
- Teachings (sld, class, paperid, session, hours)
- Subjects (paperid, subject, papers, papersname)

**Write SQL statements for the following -**

- Create the above tables with the given specifications and constraints
  - Insert about 10 rows as are appropriate to solve the following queries
  - List the names of the teachers teaching computer subjects
  - List the names and cities of all staff working in your college
  - List the names and cities of all staff working in your college who earn more than 15,000
  - Find the staffs whose names start with 'M' or 'R' and ends with 'A' and/or 'J' character long.
  - Find the staffs whose date of joining is 2005.
  - Modify the database so that staff(N) now works in C2 College
  - List the names of subjects, which T1 teaches in the session or all sessions
  - Find the classes that T2 do not teach at present session
  - Find the colleges who have more number of staffs
  - Find the staffs that earn a higher salary, who earn greater than average salary of their college
  - Find the colleges whose average salary is more than average salary of C2
  - Find the college that has the smallest payroll
  - Find the colleges where the total salary is greater than the average salary of all colleges
  - List maximum, average, minimum salary of each college
- List the names of the teachers, departments teaching in more than one department
  - Aggregate details of staffs by name in a college or each college
  - Find the names of staff that earn more than each staff of C2 College
  - Give all principals a 10% rise in salary unless their salary becomes greater than 20,000 in such case give 7% rise
  - Find all staff that do not work in same cities as the colleges they work

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- List names of employees in ascending order according to salary who are working in your college or all colleges
- Create a view listing fields name, name, dept, DOJ, and post
- Create a view consisting of name, average salary and total salary of all staff in that college
- Select the colleges having highest and lowest average salary using above views
- List the staff names of a department using above views

**2. Create the following databases**

- Enrollment (enrollno, name, gender, DOJ, address, phone)
- Admission (admisn, enrollno, course, yearsem, date, course)
- Colleges (college, city, address, phone, affliate)
- FeeStructure (course, yearsem, fee)
- Payment (billno, admno, amount, pdate, purpose)

- Create the above tables with the given specifications and constraints
- Insert about 10 rows as are appropriate to solve the following queries
- Get full detail of all students who took admission this year class wise
- Get detail of students who took admission in their colleges
- Calculate the total amount of fees collected in this session
  - in your college
  - by each college
  - by all colleges
- List the students who have not paid full fee
  - in your college
  - in all colleges
- List the number of admissions in your class in every year
- List the students in the session who are not in the colleges in the same city as they live in
- List the students in colleges in your city and also live in your city

**3. Create the following databases**

- Subjects (paperid, subject, paper, papersname)
- Test (paperid, date, time, mark, mark)
- Score (rollno, paperid, marks, attendance)
- Students (rollno, rollno, class, yearsem)

- Create the above tables with the given specifications and constraints
- Insert about 10 rows as are appropriate to solve the following queries
- List the students who were present in a paper of a subject
- List all roll numbers who have passed in first division
- List all students in BCA-II who have scored higher than average
  - in your college
  - in every college
- List the highest score, average and minimum score in BCA-II
  - in your college
  - in every college

**4. Using the following database**

- Colleges (college, city, address, phone, affliate)
- Staffs (sll, name, address, contacts)
- StaffDates (sld, name, dept, DOJ, post, salary)
- Teachings (sld, class, paperid, session, hours)
- Subjects (paperid, subject, papers, papersname)

**Write SQL statements for the following -**

- Create the above tables with the given specifications and constraints
- Insert about 10 rows as are appropriate to solve the following queries
- List the names of the teachers teaching computer subjects
- List the names and cities of all staff working in your college
- List the names and cities of all staff working in your college who earn more than 15,000

**5. Using the following database**

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**PRACTICAL WORK**

**BCA-209 - LAB VI: Operating System Lab**

**9. Enrollment (enrollno, name, gender, DOJ, address, phone)**

- Admission (admisn, enrollno, course, yearsem, date, course)
- Colleges (college, city, address, phone, affliate)
- FeeStructure (course, yearsem, fee)
- Payment (billno, admno, amount, pdate, purpose)

- Create the above tables with the given specifications and constraints
- Insert about 10 rows as are appropriate to solve the following queries
- Get full detail of all students who took admission this year classwise
- Get detail of students who took admission in their colleges
- Calculate the total amount of fees collected in this session
  - in your college
  - by each college
  - by all colleges

**10. Enrollment (enrollno, name, gender, DOJ, address, phone)**

- Admission (admisn, enrollno, course, yearsem, date, course)
- Colleges (college, city, address, phone, affliate)
- FeeStructure (course, yearsem, fee)
- Payment (billno, admno, amount, pdate, purpose)

- List the students who have not paid full fee
  - in your college
  - in all colleges
- List the number of admissions in your class in every year
- List the students in the session who are not in the colleges in the same city as they live in
- List the students in colleges in your city and also live in your city

**11. Subjects (paperid, subject, paper, papersname)**

- Test (paperid, date, time, mark, mark)
- Score (rollno, paperid, marks, attendance)
- Students (rollno, rollno, class, yearsem)

- Create the above tables with the given specifications and constraints
- Insert about 10 rows as are appropriate to solve the following queries
- List the students who were present in a paper of a subject
- List all roll numbers who have passed in first division
- List all students in BCA-II who have scored higher than average
  - in your college
  - in every college
- List the highest score, average and minimum score in BCA-II
  - in your college
  - in every college

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**Scheme of Examination:-**

1. Practical examination will be of 3 hours duration. The distribution of practical marks will be as follows

Program 1	-	20
Program 2	-	20
Program 3	-	20
Viva	-	25
[ Practical Copy + Internal Record ]	-	15
<b>Total</b>	-	<b>100</b>

- In every program there should be comment for each coded line or block of code
- Practical file should contain printed programs with name of author, date, path of program, unit no. and printed output
- All the following programs or a similar type of programs should be prepared

**List of Practical**

- Change your shell environment - path, home, file, mail, ps1, ps2, time, hostname
  - at user level
  - at shell level
  - at login level
- Change the wallpaper, screen saver in GNOME, KDE
- Install Linux with following specifications - username, password, partitions for various drives such as /etc, /home, etc
- Add a user and password, change the password
- Add & remove a group
- Create partitions on your disk
- Install and configure fdisk (i) scanner

**Using vi editor do the following exercises**

- In a file
  - replace the words 'bar' with 'bar bar'
  - Locate a character
  - Sort lines 23 to 40
- In a file copy/insert and paste following text
  - At line 10, insert a line in line 10
  - Yank a few words
  - Cut and paste a words to line 10 position at line 10
- Open two files 'bottle' and 'newfile' and copy last 5 lines from bottle and paste them in newfile using vi editor
- Open 'bottle' and copy last following and paste in the 'newfile'
  - 'r' in the last line in it
- Create macro
  - to paste your name at any position in the file
  - to map the '!' function key to search for "loop" and copy into the buffer 'a' all lines following it up to but not including the string "end"
  - to remove all leading spaces in a file
  - to save and quit vi editor in input mode

**Write commands**

- List all files that match a class

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**PRACTICAL WORK - BCA II**  
**BCA-207 - LAB IV: Programming Lab in 'C++'**

**1. Scheme of Examination:-**

Practical examination will be of 3 hours duration. The distribution of practical marks will be as follows:-

Program 1	20
Program 2	20
Program 3	20
Viva	20
(Practical Copy + Internal Record)	20
<b>Total</b>	<b>100</b>

2. In every program there should be comment for each coded line or block of code.

3. Practical file should contain printed programs with name of author, date, path of program, run on, and printed output.

4. All the following programs or a similar type of programs should be prepared.

**List of Practice**

**1. OOPS, THE NAMESPACE, NESTED METHOD, MEMBER FUNCTION, FRIEND (OUTSIDE CLASS BODY)**

1. Write program to generate following pattern:

```

A B C D E F G
A B C   E F G
A B     F G
A       G

```

```

M1      M2      M3
1 2      1 2 1
1 2 3    1 2 3 1
1 2 3 4  1 2 3 4 1

```

2. Write member functions which when called take pattern type, if user enters 1) then a member function is called which generates first pattern using for loop. If user enters 2) then a member function is called which generates first pattern using while loop. If user enters 3) then a member function is called which generates second pattern using for loop and so on.

3. Write program to display number 1 to 10 in total, decimal and hexadecimal system.

4. Write program to display number from one number system to another number system. The program must ask for the number system in which you will input integer value then the program must ask for the number system in which you will want, output of the input number after that you have to input the number in specified number system and program will give the output according to number system for input you mentioned earlier.

**Array**

5. Write a program using function to add, subtract and multiply two matrices of order 3x3. You have to create one function for addition, which accepts three array arguments. First two array arguments are matrices to add and third matrix is destination where the resultant of addition of first two matrices is stored. In similar way create functions for matrix subtraction and multiplication.

6. Create a single program to perform following tasks without using library functions:

- To reverse the string accepted as argument.
- To count the number of characters in string passed as argument in form of character array.
- To copy the one string to other string, passed as argument in form of source character array and destination character array without using library function.
- To insert two or more characters in each word of a sentence passed as argument in form of character array.

as the object is created. One static member function may be created to increase value of static data member as the object is destroyed. One static member function may be created to display the current value of static data member. Test main function to test the class Counter.

**STRUCTURE AND CLASS**

18. Define structure and class. Structure stores data members for storing name, roll no, name of three subjects and marks. Write member function to store and print data.

**COPY CONSTRUCTION, CONSTRUCTOR OVERLOADING, THIS POINTER, CONSTRUCTOR WITH DEFAULT ARGUMENT.**

19. Write program to create a class Polar which has data member radius and angle, define overloaded constructor to initialize object and copy constructor to initialize one object by another creating object keep name of parameter of parameterized constructor same as data members. Test function of the program in main function.

20. Write program to create a class Polar which has data member radius and angle, use constructor with default arguments as a constructor, overloading and copy constructor to initialize one object by another creating object keep name of parameter of parameterized constructor same as data members. Test functioning of the program in main function.

**FUNCTION OVERLOADING, REFERENCE VARIABLE, PARAMETER PASSING BY ADDRESS, STATIC FUNCTION.**

21. Write a class having name Calculate that use static overloaded function to calculate area of circle, area of rectangle and area of triangle.

22. Write a class ArraySort that use static overloaded function to sort an array of floats, an array of strings.

23. Write a program using class, which use static overloaded function to swap two integers, two float methods use reference variable.

24. Write a program using class, which use static overloaded function to swap two integers, two float methods use parameter passing by address.

**STRING, POINT, AND OPERATOR OVERLOADING.**

25. Create class String having pointer to character as data member and provide following facilities:

- Constructor for initialization and memory allocation.
- Destructor for memory release.
- Overloaded operator + to add two string object.
- Overloaded operator = to assign one string object to other string object.
- Overloaded operator == to compare whether the two string objects are equal or not.
- Overloaded operator > to compare whether first string object is less than second string object.
- Overloaded operator < to compare whether first string object is greater than second string object or not.
- Overloaded operator >> to compare whether first string object is less than or equal to second string object or not.
- Overloaded operator << to compare whether first string object is greater than or equal to second string object.
- Overloaded operator != to compare whether first string object is not equal to second string object or not.

26. Create a class Matrix having data member double dimension array of float of size 2x3. Provide following facilities:

- Overloaded extraction operator for data input.
- Overloaded insertion operator for data output.
- Overloaded operator + for adding two matrix using objects.
- Overloaded operator - for subtracting two using matrix objects.
- Overloaded operator \* for multiplying two using matrix objects.

**OPERATOR OVERLOADING WITH FRIEND FUNCTION**

27. Create a class Polar having radius and angle as data members. Provide following facilities:

- Overloaded insertion and extraction operators for data input and display.

**Class, Object, Array of object, Object Using Array**

28. Create a class Student having data members to store roll number, name of student, name of three subjects, marks marks, test marks, obtained marks. Declare an object of class Student. Provide facilities to input data in data members and display result of student.

29. Create a class Student having data members to store roll number, name of student, name of three subjects, marks marks, test marks, obtained marks. Declare array of object to hold data of 3 students. Provide facilities to display result of all students. Provide also facility to display result of specific student whose roll number is given.

30. Create a class Survey having an array of integer having 3 elements as data member provide following facilities:

- Constructor to get number in array elements. b) Sort the elements. c) Find largest element.

**Static member function**

31. Create a class Simple with static member functions for following tasks:

- To find factorial by recursive member function.
- To check whether a no. is prime or not.
- To generate Fibonacci series up to requested terms.

**Object as argument to function, function returning object**

32. Write program using class having class name Matrix. Matrix has pointer to pointer to integer as data member to represent double dimension dynamic array and provide following facilities:

- Constructor to input values in array elements.
- Input member function to get input in array element.
- Output member function to print element value.
- Add member function to perform matrix addition using objects.
- Subtract member function to perform matrix subtraction using objects.
- Multiply member function to perform matrix multiplication using objects.

33. Write program to create class complex having data members to store real and imaginary part. Provide following facilities:

- Add two complex no. using objects. b) Subtract two complex no. using objects. c) Multiply two complex no. using objects. d) Divide two complex no. using objects.

**Friend Function**

34. Create class Polar having data members radius and angle. It contains member functions for taking input to data members and member function for displaying value of data members. Class Polar contains declaration of friend function add which accepts two objects of class Polar and returns object of class Polar after addition. Test the class using main function and objects of class Polar.

35. Write program to create class Distance having data members feet and inch (A single object will store distance in feet and inch as 3 feet 3 inch). It contains member functions for taking input to data members and member function for displaying value of data members. Class Distance contains declaration of friend function add which accepts two objects of class Distance and returns object of class Distance after addition. Class Distance contains declaration of another friend function Subtract that accepts two objects of class Distance and returns object of class Distance after subtraction. Test the class using main function and objects of class Distance.

36. Write a program to create class Mother having data member to store salary of Mother, create another class Father having data member to store salary of Father. Write a friend function, which accepts objects of class Mother, and Father and prints Sum of Salary of Mother and Father objects.

**Friend Class**

37. Write a program to create class Mother having data member to store salary of Mother, create another class Father having data member to store salary of Father. Declare class Father to be friend class of Mother. Write a member function in Father, which accepts object of class Mother and prints Sum of Salary of Mother and Father Objects. Create member function in each class to get input to data member and to display the value of data member.

**Static Data Member**

38. Create a class Counter having a static data member, which keeps track of no. of objects created of type Counter. One static member function must be created to increase value of static data member.

- Overloaded constructor for initialization of data members.
  - Overloaded operator + to add two polar object using objects of class Polar.
28. Create class DegreeCelsius having a single data member to hold value of temperature in degree Celsius. Provide following facilities:
- Overloaded operator ++ which will increase value of data member by 1 (consider postfix and prefix operator overloading).
  - Overloaded operator -- which will decrease value of data member by 1 (consider postfix and prefix operator overloading).
  - Overloaded insertion and extraction operators for input in data member and display value of data member.

**OPERATOR OVERLOADING AND DATA TYPE CONVERSION**

29. Create a class Polar that contains data member radius and angle. Create another class Cartesian in the same program and provide following facilities:

- It should be possible to assign object of polar class to object of Cartesian class.
- It should be possible to assign object of Cartesian class to object of polar class.

30. Create a class Fahrenheit that contains a data member to hold temperature in Fahrenheit. Create another class Celsius that contains a data member to hold temperature in Degree Celsius, in the same program and provide following facilities:

- It should be possible to assign object of Fahrenheit class to object of Celsius class.
- It should be possible to assign object of Celsius class to object of Fahrenheit class.
- It should be possible to compare objects of class Fahrenheit and Celsius to find out which object contains higher temperature.

**VOID POINTER, POINTER AND POINTER TO OBJECT**

31. Create a program having pointer to void to store address of integer variable then print value of integer variable using pointer to void. Perform the same operation for float variable.

32. Write program to find biggest number among three numbers using pointer and function.

33. Write program to demonstrate call by value, call by address and call by reference in a single program.

34. Write program to Create a class Employee having data members to store name of employee, employee id, salary. Provide member function for data input, output. Use Pointer to object to store name of object to store information of 3 employees and test the program in function main.

**INLINE FUNCTION.**

35. Write a program using inline function to calculate area of circle.

36. Write a program using inline function to find minimum of two functions. The inline function should take two arguments and should return the minimum value.

**INHERITANCE**

37. Create a class account that stores customer name, account number and type of account. From this derive the class sav and cur just to make them more specific to their requirements. Include necessary member functions in order to achieve the following tasks:

- Account dependent from main.
- Display the balance.
- Computer and deposit interest.
- Permit withdrawal and update the balance.
- Check for the minimum balance, impose penalty, necessary and update the balance.

38. Create a class circle with data member radius, provide member function to calculate area. Derive a class sphere from class circle, provide member function to calculate volume. Derive class cylinder from class sphere with additional data member for height and member function to calculate volume.

39. Consider an example of declaring the examination result. Design three classes - student, exam and result. The student class has data members such as roll representing roll number, name of student. Create the class exam, which contains data members representing name of subject, maximum

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## छत्तीसगढ़ युवा विकास संगठन शिक्षण समिति द्वारा संचालित

(उच्च शिक्षा विभाग से मान्यता प्राप्त एवं पं. रविशंकर मुकुल विश्वविद्यालय से स्थायी संबद्ध)

## विप्र कला वाणिज्य एवं शारीरिक शिक्षा महाविद्यालय

जी.ई रोड, रायपुर (छ.ग.)

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Phone No.-9406082000

### SCHEME OF EXAMINATION 2022-23

#### BCA PART-II

Subject Code	Subject Paper	Theory 2023-24				Teaching Load per Week		
		Max. (A)	Min. (B)	Max. (C)	Min. (D)	L	T	P
BCA201	Calculus and Differential Equations	80	27	20	8	4	2	-
BCA202	Database Management System	80	27	20	8	4	2	-
BCA203	Programming in 'C++'	80	27	20	8	4	2	-
BCA204	Computer Networks	80	27	20	8	4	2	-
BCA205	Operating Systems with Linux	80	27	20	8	4	2	-
BCA206	Foundation Course	80	27	20	8	4	2	-
BCA207	LAB IV: Programming Lab in 'C++'	100	50	40	16	-	-	3x2
BCA208	LAB V: Database Management System Lab	100	50	40	16	-	-	2x2
BCA209	LAB VI: Operating System Lab	100	50	20	8	-	-	1x2
TOTAL		780	312	220	88			
GRAND TOTAL	(PAPER + INTERNAL)	(A+C)		(B+D)				
		1000		400				

- Student will have to pass individually in all theory, practical and sessional.

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**PRACTICAL WORK BCA-007 Programming Lab in Java**

1. Scheme of Examination:- Practical examination will be of 3 hours duration. The distribution of

practical marks will be as follows:

Programme 1	-20
Programme 2	-20
Programme 3	-20
Viva	-20
Practical Copy + Internal Record	-20
<b>Total</b>	<b>-100</b>

- In every program there should be comment for each coded line or block of code
- Practical file should contain printed programs with name of author, date, path of program, unit no. and printed output.
- All the following programs or a similar type of programs should be prepared

**List of Practical**

- WAP that implements the Concept of Encapsulation.
- WAP to demonstrate concept of function overloading of Polymorphism.
- WAP to demonstrate concept of constructor overloading of Polymorphism.
- WAP to use boolean data type and print the Prime number Series up to 50.
- WAP to print first 10 numbers of the following Series using Do-While Loops 0, 1, 1, 2, 3, 5, 8, 11,...
- WAP to check the given number is Armstrong or not.
- WAP to find the factorial of any given number.
- WAP to sort the element of One Dimensional Array in Ascending order.
- WAP for matrix multiplication using input/output Stream.
- WAP for matrix addition using input/output stream class.
- WAP for matrix transpose using input/output stream class.
- WAP to add the elements of Vector as arguments of main method (Run time) and rearrange them, and copy it into an Array.
- WAP to check that the given string is palindromic or not.
- WAP to arrange the string in alphabetical order.
- WAP for Stringbuffer class which perform the all methods of that class.
- WAP to calculate Simple Interest using the Wrapper Class.
- WAP to calculate Area of various geometrical figures using the abstract class.
- WAP where Single class implements more than one interfaces and with help of interface reference variable user call the methods.
- WAP that use the multiple catch statements within the try-catch mechanism.
- WAP where user will create a self-Exception using the "throw" keyword.
- WAP for multithread using the `wait()`, `join()` and `synchronized()` methods of Thread class.
- WAP to create a package using `command` and one package will import another package.
- WAP for JDBC to insert the values into the existing table by using prepared Statement.
- WAP for JDBC to display the records from the existing table.
- WAP for demonstration of switch statement, continue and break.

- Design a menu such that it contain submenus such as Addition, Subtraction, Scalar Multiplication, Multiplication, Transpose of two matrix.
- WAP to find greatest among three given number using user define procedure.
- WAP to calculate factorial of a number using user define procedure.
- WAP to check whether given number is leap or not using user define function.
- WAP to check whether a given number is Even or not using procedure.
- WAP to check whether a given number is duck number or not.
- WAP to check whether a given number is spy number or not.
- WAP to check whether a given number is red.
- Design the following application using radio button and checkbox.



- Design an application to Create the Payroll form shown below. Number of hours must be entered as well as the appropriate rate.  
Gross salary = rate \* hours.  
Net salary = gross salary - deductions.



- Design an application which is similar to register using names.

**BCA300- LAB VII. Dot Net Technology Lab**

1. Scheme of Examination:-

Practical Examination will be of 3 hours duration. The distribution of practical marks is as follows:

Program1	-	20
Program2	-	20
Program3	-	20
Viva 20	-	20
(Practical Record + Internal Record)	-	20
<b>Total</b>		<b>-100</b>

**List of Practical**

- Write a program to find maximum between three numbers.
- Write a program to check whether a number is negative, positive or zero.
- Write a program to check whether a year is leap year or not.
- Write a program to check whether a character is a vowel or not.
- Write a program to find all roots of a quadratic equation.
- Design an application to input marks of five subjects Physics, Chemistry, Biology, Mathematics and Computer. Calculate percentage and grade according to following:  
Percentage >= 90% : Grade A  
Percentage = 80% : Grade B  
Percentage = 70% : Grade C  
Percentage = 60% : Grade D  
Percentage = 50% : Grade E  
Percentage < 40% : Grade F
- Design an application to input basic salary of an employee and calculate its Gross salary according to following:  
Basic Salary <= 20000 : HRA = 20%, DA = 80%  
Basic Salary <= 20000 : HRA = 25%, DA = 90%  
Basic Salary > 20000 : HRA = 30%, DA = 95%
- Design an application to input electricity unit charges and calculate total electricity bill according to the given condition:  
For first 50 units Rs. 0.50/unit  
For next 100 units Rs. 0.75/unit  
For next 100 units Rs. 1.25/unit  
For unit above 250 Rs. 1.50/unit  
An additional surcharge of 10% is added to the bill.
- Write a program to convert decimal to binary number using bitwise operator.
- Write a program to swap two numbers using bitwise operator.
- Write a program to create Simple Calculator using select case.
- Write a program to find sum of all natural numbers between 1 to n.
- Write a program to find first and last digit of any number.
- Write a program to enter any number and print its reverse.



- Develop an application for facilitating purchasing order.



- Develop an application for billing system in coffee shop.



- Develop an application which is similar to login form.

*Handwritten signatures and initials are present throughout the page, including 'Datta', 'Kumar', 'Singh', 'Joshi', 'Patel', 'Sharma', 'Gupta', 'Kumar', 'Singh', 'Joshi', 'Patel', 'Sharma', 'Gupta', 'Kumar', 'Singh', 'Joshi', 'Patel', 'Sharma', 'Gupta'.*

Q.8. Write an HTML program to create the following table:

**Car Price List**

Maruti		Tata		Ford	
Model	Price	Model	Price	Model	Price
Maruti 800	2 Lac	Sumo	2 Lac	Ikon	5 Lac
Omni	3 Lac	Scorpio	3 Lac	Gen	2 Lac

Q.9. Write an HTML program to create the following table:

**Students Records**

Name	Subject	Marks
Aran	Java	70
	C	80
Ashish	Java	75
	C	69

Q.10. Create an HTML document and embed a flash movie in it.

Q.11. Write the HTML coding to display the following table. Also insert an image in the web page.

Subject	Max	Min	Obtain
Java	100	33	75
Multimedia	100	33	70
Operating System	100	33	68
C++	100	33	73

Q.12. Write the HTML coding to display the following table:

Name		Rahul	
Roll No.		101	
Subject	Max	Min	Obtain
Java	100	33	75
Multimedia	100	33	70

Q.13. Write an HTML program to create a form as the following:

Enter Name:

Enter Roll No.:

Enter Age:

Enter DOB:

Q.14. Write an HTML program to create a web page with an image as background and the following text:

**New Delhi**

New Delhi, the capital and the third largest city of India is a fusion of the ancient and the modern. The refrains of the Muslim dynasties with its architectural delights, give the majestic ambience of the bygone era.

On the other side New Delhi, the imperial city built by British, reflect the fast paced present. The most fascinating of all is the character of Delhi which varies from the 13<sup>th</sup> present century mausoleum of the Lodi kings to ultra modern glass skyscrapers.

Q.15. Create the following HTML form.

USERNAME:

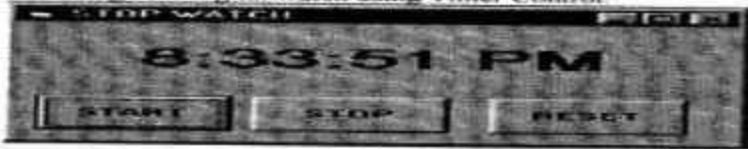
PASSWORD:

When user types characters in a password field, the browser displays asterisks or bullets instead of characters.

*[Handwritten signatures and marks]*



13. Design the digital watch using Timer Control



14. Design the following form using horizontal scrollbar. In this, when user click on particular scroll bar then back color of shape will be changed to Red, Green & Blue color



## SQL

1. Using the following database,

Colleges (cname, city, address, phone, afdate)  
Staffs ( sid, sname, saddress, contacts)  
StaffJoins ( sid, cname, dept, DOJ, post, salary)  
Teachings ( sid, class, paperid, fsession, tsession)  
Subjects ( paperid, subject, paperno, papername)

Write SQL statements for the following –

- Create the above tables with the given specifications and constraints.
- Insert about 10 rows as are appropriate to solve the following queries.
- List the names of the teachers teaching computer subjects.
- List the names and cities of all staff working in your college.
- List the names and cities of all staff working in your college who earn more than 15,000

2. Using the following database,

Colleges (cname, city, address, phone, afdate)  
Staffs ( sid, sname, saddress, contacts)  
StaffJoins ( sid, cname, dept, DOJ, post, salary)  
Teachings ( sid, class, paperid, fsession, tsession)  
Subjects ( paperid, subject, paperno, papername)

Write SQL statements for the following –

- Find the staffs whose names start with 'M' or 'R' and ends with 'A' and/or 7 characters long.
- Find the staffs whose date of joining is 2005.
- Modify the database so that staff N1 now works in C2 College.
- List the names of subjects, which T1 teaches in this session or all sessions.
- Find the classes that T1 do not teach at present session.

3. Using the following database,

Colleges (cname, city, address, phone, afdate)  
Staffs ( sid, sname, saddress, contacts)  
StaffJoins ( sid, cname, dept, DOJ, post, salary)  
Teachings ( sid, class, paperid, fsession, tsession)  
Subjects ( paperid, subject, paperno, papername)

Write SQL statements for the following –

- Find the colleges who have most number of staffs.
- Find the staffs that earn a higher salary who earn greater than average salary of their college.
- Find the colleges whose average salary is more than average salary of C2
- Find the college that has the smallest payroll.
- Find the colleges where the total salary is greater than the average salary of all colleges.

4. Using the following database,

Colleges (cname, city, address, phone, afdate)  
Staffs ( sid, sname, saddress, contacts)  
StaffJoins ( sid, cname, dept, DOJ, post, salary)  
Teachings ( sid, class, paperid, fsession, tsession)  
Subjects ( paperid, subject, paperno, papername)

Write SQL statements for the following –

- List maximum, average, minimum salary of each college
- List the names of the teachers, departments teaching in more than one department.
- Acquire details of staffs by name in a college or each college.
- Find the names of staff that earn more than each staff of C2 College
- Give all principals a 10% rise in salary unless their salary becomes greater than 20,000 in such case give 5% rise.

*[Handwritten signatures]*



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विप्र कला वाणिज्य एवं शारीरिक शिक्षा महाविद्यालय

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**SCHEME OF TEACHING AND EXAMINATION**  
**P.G.D.C.A. (Post Graduate Diploma in Computer Applications)**

**SECOND SEMESTER**

Subject Code	SUBJECTS	Teaching Load Per Week			Examination Marks							
					Max. Marks				Min. Marks			
		L	T	P	Th	Ses	Pr	Total	Th	Ses	Pr	Total
PGDCA106	Programming in VB .Net	3	2	-	80	20	-	100	20	13	-	33
PGDCA107	Database Management Systems	3	2	-	80	20	-	100	20	13	-	33
PGDCA108	Internet and Web Technology	3	2	-	80	20	-	100	20	13	-	33
PGDCA109	Practical based on PGDCA106	-	-	3x2	-	-	100	100	-	-	40	40
PGDCA110	Practical based on PGDCA107 and PGDCA-108	-	-	3x2	-	-	100	100	-	-	40	40
<b>TOTAL</b>		<b>9</b>	<b>6</b>	<b>12</b>	<b>240</b>	<b>60</b>	<b>200</b>	<b>500</b>	<b>60</b>	<b>39</b>	<b>80</b>	<b>179</b>

*[Handwritten signatures and initials]*

### Array & Function

20. Create a single program to perform following tasks using switch, if, else, loop, function and double dimension integer array of size 3x3:
    - a) Addition of two matrix.
    - b) Subtraction of two matrix.
    - c) Multiplication of two matrix.
    - d) Inverse of matrix.
    - e) Transpose of matrix.
  21. Create a single program to perform following tasks using switch, if, else, loop, user defined function and single dimension character array:
    - a) To reverse the string.
    - b) To count the number of characters in string.
    - c) To copy the one string to other string.
    - d) To find whether a given string is palindromic or not.
    - e) To count no. of vowels, consonant in each word of a sentence and no. of punctuations in sentence.
  22. Create a single program to perform following tasks using switch, if, else, loop, function and single dimension integer array:
    - a) Sort the elements.
    - b) Find largest element and smallest element.
    - c) Search for presence of particular value in array element using linear search.
    - d) Search for presence of particular value in array element using binary search.
  23. Create a single program to perform following tasks using switch, if, else, loop, function and double dimension character array of size 3x40:
    - a) Sorting of string.
    - b) Finding the largest string, lexicographically.
    - c) Finding the smallest string, lexicographically.
    - d) Searching for presence of string in array.
- Structure & Union**
24. Create a structure Student having data members to store roll number, name of student, name of three subjects, max marks, min marks, obtained marks. Declare a structure variable of student. Provide facilities to input data in data members and display result of student.
  25. Create a structure Date with data member's dd, mm, yy (to store date). Create another structure Employee with data members to hold name of employee, employee id and date of joining (date of joining will be hold by variable of structure Date which appears as data member in Employee structure). Store data of an employee and print the same.
  26. Create a structure Student having data members to store roll number, name of student, name of three subjects, max marks, min marks, obtained marks. Declare array of structure to hold data of 3 students. Provide facilities to display result of all students. Provide facility to display result of specific student whose roll number is given.
  27. Write program to create structure complex having data members to store real and imaginary part. Provide following facilities:
    - a) Add two complex nos. using structure variables.
    - b) Subtract two complex nos. using structure variables.
    - c) Multiply two complex nos. using structure variables.
    - d) Divide two complex nos. structure variables.

Use structure as argument to function and function returning structure.

### POINTER

28. Define union Emp having data members: one integer, one float and one single dimension character array. Declare a union variable in main and test the union variable.
29. Define an enum Days\_of\_Week members of which will be days of week. Declare an enum variable in main and test it.
30. Write a program of swapping two numbers and demonstrates call by value and call by reference.
31. Write program to sort strings using pointer exchange.
32. Write a program in c using pointer and function to receive a string and a character as argument and return the no. of occurrences of this character in the string.
33. Create a program having pointer to void to store address of integer variable then print value of integer variable using pointer to void. Perform the same operation for float variable.
34. Write program to find biggest number among three numbers using pointer and function.
35. Write program to Create a structure Employee having data members to store name of employee, employee id, salary. Use Pointer to structure to store data of employee and print the stored data-using pointer to structure.
36. Write program to Create a structure Employee having data members to store name of employee, employee id, salary. Use Pointer to structure to simulate dynamic array of structure store data of n employees and print the stored data of n employees using pointer to structure.
37. Write a program to sort a single dimension array of integers of n elements simulated by pointer to integer. Use function for sorting the dynamic array.
38. Write a program to sum elements of a double dimension array of integers of m rows and n columns simulated by pointer to pointer to integer. Use function for sum the elements of the dynamic array.
39. Write program to demonstrate difference between character array and pointer to character.
40. Write program to demonstrate difference between constant pointer and pointer to constant.
41. Write program to demonstrate pointer arithmetic.
42. Write program to demonstrate function-returning pointer.
43. Write program using self-referential pointer to structure to create and print the linked list, data structure.

### FILESTREAMS

44. Write program to copy content of one file to other file removing extra space between words name of files should come from command line arguments.
45. Write program to create a file "data" containing a series of integers and count all even numbers present in the file "data".
46. Write a program to count no. of tabs, new lines, character and space of a file.
47. Write a program to read item number, rate and quantity from an inventory file and print the followings:
  1. Items having quantity > 5.
  2. Total cost of inventory.

## List of Practical

### INPUT AND OUTPUT, FORMATTING

1. Write a program in which you declare variable of all data types supported by C language. Get input from user and print the value of each variable with alignment left, right and column width 10. For real numbers print their values with two digits right to the decimal.

### LOOPS, DECISIONS

2. Write program to print all combination of 1 2 3.
3. Write program to generate following pattern:

a) 

```
*****
 *   *
 *   *
 *   *
 *   *
 *   *
 *   *
```

b) 

```
1
2 3
4 5 6
7 8 9 10
```

c) 

```
      *
     **
    ***
   ****
  *****
 *****
  *****
   ****
    ***
     **
      *
```

d) 

```
      1
     2 1 2
    3 2 1 2 3
   4 3 2 1 2 3 4
  5 4 3 2 1 2 3 4
 5 4 3 2 1 2 3 4
 5 4 3 2 1 2 3 4
```

4. Write main function using switch...case, if else and loops which when called asks pattern type; if user enters 1: then first pattern is generated using for loop. If user enters 13 then first pattern is generated using do-while loop. If user enters 21 then a second pattern is generated using for loop and so on.
5. Write program to display number 1 to 10 in octal, decimal and hexadecimal system.
6. Write program to display number from one number system to another number system. The program must ask for the number system in which you will input integer value then the program must ask the number system in which you will want output of the input number after that you have to input the number in specified number system and program will give the output according to number system for output you mentioned.
7. Write a program to perform following tasks using switch...case, loops, and conditional operator (?:) and when necessary:
  - a) Find factorial of a number
  - b) Print fibonacci series up to n terms and its sum
  - c) Print sin series up to n terms and its sum
  - d) Print exponential series up to n terms and its sum
  - e) Print prime numbers up to n terms
  - f) Print whether a given year is leap or not

8. Write program no. 6 but use library function to perform above tasks.

### ARRAY

9. Create a single program to perform following tasks using switch, if, else, loop and single dimension character array without using library function:
  - a) To reverse the string
  - b) To count the number of characters in string
  - c) To copy the one string to other string
  - d) To find whether a given string is palindrome or not
  - e) To count no. of vowels, consonants in each word of a sentence and no. of punctuation in sentence
  - f) To sort the alphabets of a string in ascending order
10. Create a single program to perform following tasks using switch, if, else, loop and single dimension integer array:
  - a) Sort the elements
  - b) Search for presence of particular value in array element using linear search
  - c) Search for presence of particular value in array element using binary search
11. Write a program that read the afternoon day temperature for each day of the month and then report the month average temperature as well as the days on which hottest and coolest days occurred.
12. Create a single program to perform following tasks using switch, if, else, loop and double dimension integer array of size 3x3:
  - a) Addition of two matrix
  - b) Subtraction of two matrix
  - c) Multiplication of two matrix
  - d) Inverse of matrix
  - e) Transpose of matrix
  - f) Sum of diagonal elements
13. Create a single program to perform following tasks using switch, if, else, loop and double dimension character array of size 3x10:
  - a) Sorting of string
  - b) Finding the largest string
  - c) Finding the smallest string
  - d) Searching for presence of a string in array

### FUNCTIONS

14. Write program using the function power (a, b) to calculate the value of a raised to b.
15. Write program to demonstrate difference between static and auto variable.
16. Write program to demonstrate difference between local and global variable.
17. Write a program to perform following tasks using switch...case, loops and functions:
  - a) Find factorial of a number
  - b) Print fibonacci series up to n terms and its sum
  - c) Print sin series up to n terms and its sum
  - d) Print exponential series up to n terms and its sum
  - e) Print natural series up to n terms and its sum
18. Write a program to perform following tasks using switch...case, loops and recursive functions:
  - a) Find factorial of a number
  - b) Print fibonacci series up to n terms and its sum
  - c) Print sin series up to n terms and its sum
  - d) Print exponential series up to n terms and its sum
  - e) Print natural series up to n terms and its sum
19. Write a function to accept 10 characters and display whether each input character is digit, uppercase letter or lower case letter.



### MS-Access

Q.1. Create the following table in MS-Access:

Field Name	Data Type	Description
ContactID	AutoNumber	Primary Key
ContactType	Text 50	Type of contact (Wholesale, dealer, other)
Name	Text 50	Contact's first name
Company	Text 50	The Contact's employer
Address	Text 50	Contact's address
City	Text 50	Contact's city
State	Text 50	Contact's state
ZipCode	Text 50	Contact's zip code
Phone	Text 50	Contact's phone
Fax	Text 50	Contact's fax
E-Mail	Text 100	Contact's e-mail address
WebSite	Text 100	Contact's Web address
LastSalesDate	Date/Time	The most recent date the contact purchased something
DiscountPercent	Number	The customary discount provided to the customer
Notes	Memo	Notes and observations regarding this customer
Active	Yes/No	Whether the customer is still buying or selling products

Q.2. Create the following tables in MS-Access with the referential integrity-foreign key:

#### I. tblProducts

Primary Key - ProductID

ProductID	Description	Category	Quantity	Cost	RetailPrice	Product Number	SalePrice	Taxable
-----------	-------------	----------	----------	------	-------------	----------------	-----------	---------

#### J. tblSalesInvoices

Primary Key - SalesInvoiceID

SalesInvoiceID	InvoiceNumber	ProductID	ProductNumber	Quantity	Description	Price	Disc
----------------	---------------	-----------	---------------	----------	-------------	-------	------

#### K. tblSales

Primary Key - InvoiceNumber

InvoiceNumber	SaleDate	InvoiceDate	Buyer	PaymentMethod	TaxLocation	TaxRate
---------------	----------	-------------	-------	---------------	-------------	---------

### MS-PowerPoint

- Q 1 Create a PPT of Atleast 10 Slides with one slide for comparison, one slide displaying a chart with the table.
- Q 2 Create a PPT presentation use rehearse timing for the slide show.
- Q 3 Create PPT presentation: slide import sound and video clips.
- Q 4 Create PPT presentation with hyperlinking.
- Q 5 Create PPT presentation and apply themes and transitions.

### MS-Publisher

1. Create a business card for your business. Include the following information:
  - a. Logo
  - b. Company Name
  - c. Your name and title (Eg. Owner, President, Manager)
  - d. Address
  - e. Phone
  - f. Email
  - g. Web address
2. Create a Greeting Card. Using the following:
  - a) Greeting of your choice
  - b) Image on the front of the card
  - c) Cost
  - d) Made by
  - e) Image on the inside folds of the card
  - f) Image on the back of the card
3. create a Letterhead for your business. Be sure to include the following information:
  - a. Logo
  - b. Company Name
  - c. Address
  - d. Phone
  - e. Email
  - f. Web address
4. Create a Flyer for the Open House. Be sure to include the following information:
  - a. Logo
  - b. Company Name
  - c. Address
  - d. Open House
  - e. Date and Time of the Open House
  - f. A little information about what your company does, if it isn't obvious
  - g. Promote some kind of food (Eg. Cookies and punch, lots of beverages, water)
  - h. Door prizes
5. Create a brochure that meet:
  - a) Modify a template to create a brochure
  - b) Replace placeholder graphics with new
  - c) Use a minimum of 2 graphics
  - d) Replace text
  - e) Appropriate use of text and graphics for a brochure
6. Create a Invitation Card
  - a) Your Name
  - b) The Event
  - c) The Starting Time
  - d) The Place
  - e) What to Wear
  - f) What to Bring
7. Create Award Certificate
  - a) All relevant info
  - b) An interesting graphic or picture
  - c) It must be eye-catching pleasing
  - d) Originality and creativity

Keep in mind if you wish you use certificate paper or photo paper



### 8. Create Breakfast Product Advertisement

design an advertisement for a NEW and ORIGINAL breakfast product using Microsoft Publisher. This advertisement should be eye-catching, well balanced, and free of errors.

- 1 font only-You may use different sizes and colors
- 2 graphic maximum- Make sure they go with the theme of the ad
- Name the product using Word Art (watch your font choice!)
- Create a catchy slogan for the product and state using the custom rotate button
- Provide a short description of the product
- Create a coupon that includes a header, name of the product, amount saved, and expiration date
- Include either a table or bullet somewhere in your design that lists some of the selling points of your product
- Must fit on one page only

7. Create a document in MS-Word. Set the watermark as **MSCEWORT**. Also write the following text as formatted below:  
*mastering programming program by lines of code is like mastering aircraft building progress by weight.*  
 —Bill Gates

8. Create the following:



9. Create the following:



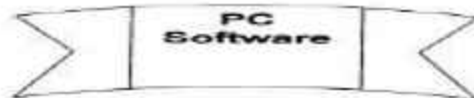
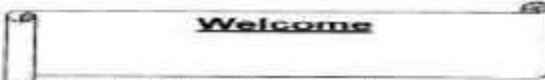
10. Create the following table in MS-Word.

Course	Admission 2011-2012				Total
	DC	CB	MBE	SC/ST	
Computer Science	9	18	5	2	34
Commerce	14	15	6	5	40
Mathematics	12	20	4	4	40

11. Create Table as shown

Car	Model/Year	Price
Maruti	Maruti Vibe	2400000
	Maruti Nano	2425000
Tata	Suzuki	3900000
	Suzuki	4470000

12. Insert the following in MS-Word.



13. Insert the following in MS-Word.



14. Write the following in MS-Word.

- > THIS IS SENTENCE CASE
- > this is lowercase.
- > THIS IS UPPERCASE
- > This is Capitalize Each Word
- > THIS IS TOGGLE CASE



#### MS - EXCEL

1. Create the following worksheet and save the worksheet as wages.xls  
**PACE COMPUTERS (ATC CEDT), Govt. of India**  
**Payroll for Employee (Temporary)**

Today's date :		Pay Rate :	
Worker's Name	Hired On	days Worked	Gross Wages
Kushagra	3-Mar-07		
Pradeep	4-Mar-07		
Puneet	5-Mar-07		
Rajeev	6-Mar-07		

(f) Calculate days work and gross wages

2. Create the following worksheet and save the worksheet as wages.xls

Name	Basic (monthly) (Rs.)	HRA(% of basic)	DA (Rs.)	Total Salary (1997)	Bonus (Rs)	Total Salary (1998)	% (Increase)
Shreya	5000	10	450		1200		
Somya	9000	15	800		200		
Tanya	7000	12	900		1800		

- Calculate the total salary as sum of Basic salary, HRA, DA, for each employee for 1997
- Calculate total salary for year 1998 as sum of salary of 1997 and bonus
- Calculate % increase in salary from 1997 to 1998

3. Create a worksheet as follows

**Pace computer ( ATC CEDT ) Govt. Of India**  
**Payroll for employee (Permanent)**

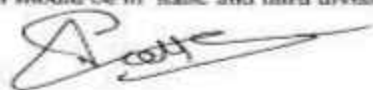
Empcode	name	doj	salary	bonus	net salary
E001	Meeta	3-Mar-95	5000		
E002	Marej	4-Mar-96	4000		
E003	Pooja	3-Mar-95	4800		
E004	Sumita	6-Mar-97	7500		

- i. allow bonus 8000 to employee having service >2 year other wise allow bonus 3000
- ii. find net salary as sum of bonus and salary

4. create the worksheet as follows

Roll No	Name	English	Maths	Yield	Average	Division
101	Kushagra	95	99			
102	Ajay	92	95			
103	Vijay	70	69			
Class Average						

- i. find Total of two subject for each student
- ii. find average of two subject for each student
- iii. find class as average of average column
- iv. find division of student as first, second, third, assume percentage of division of your own and maximum marks in each student as 100
- v. Apply conditional formatting for division column, first division should be in bold, second division should be in italic and third division should be underline



## List of Practical

### MS- WORD

**File New, Open, Save, Cut, Copy, Paste, Drag Drop, Bullets and Numbering, Undo, Redo, Find, Replace, Paragraph Formatting, Character Formatting and Page Formatting.**

1. Open a document. Type the following text and perform the tasks as instructed below:-

#### Working with Word Processor

As already mentioned, a word processor is a package that processes textual matter and creates organized and flawless documents. In addition to it a word processor not only remove all the limitations of typewriter but also offers various useful features that cannot be even dreamt of with typewriter.

Also if same textual matter is to be reproduced with minor changes, retyping the only option in typewriters.

The word processing (and word processor) originated way back in 1964 when special typewriters: Magnetic Tape Selectric typewriters (MIST) were launched by IBM (International Business Machines).

(i) Insert the following text after the first paragraph

The main components of a word processing system are listed below:

- Computer
- Printer
- A word processing software

(ii) Save the document as Word1.doc

(iii) Move the second paragraph to the end of the document. Using drag & drop.

(iv) Move the second paragraph in the end of the document using cut, paste operations.

(v) Undo the above actions.

(vi) Now use Redo actions

(vii) Go to the End of the document ( in one step)

(viii) Go to the Beginning of document ( in one step)

(ix) Insert page break before the third paragraph.

(x) Search the word "computer" in your document with options Match case, find whole

words only.

(xi) Replace the word "typewriters" with "word processor"

(xii) Undo the above action

(xiii) Remove All page breaks from your document

(xiv) Change the magnification of your document to different percentages using zoom

features.

(xv) Format the above written paragraphs and give the options as follows:

- Alignment justified
- Indentation: left 0.2 right:0.2
- Spacing: before 6 pt. after:6 pt.
- Special: first line by .04"
- Line spacing 1.5 lines.

(xvi) Set the default tab stop to 0.3"

(xvii) Set the margins to 1.25

(xviii) Format the page using

- Left margin:0.5, right margin: 0.5
- Top margin:1.5, bottom margin:0.5
- Gutter Margin: 1 indentation: left 0.2 right:0.2
- Header Margin:0.5

(xix) Format the each occurrence of group of words "Word Processor" as bold, italic, under

line and small caps using find and replace with formatting options.

(xx) Align the heading to Center and make it bold, underlined and italicized.

**File New, Open, Save, Find, Replace, Paragraph Formatting, Character Formatting and Page Formatting.**

2. Type the text as show below and perform the tasks as directed.

#### Computers

COMPUTER is an electronic device that processes data and gives meaningful information. Computers are being used in almost all the fields today

EXPERT SYSTEMS

HUMAN THINKING AND ARTIFICIAL INTELLIGENCE

Can computer think?

All at work Today: Natural Language programs and Expert Systems.

THE IMPACT OF COMPUTERS ON PEOPLE

The Positive Impact

The Potential Dangers

THE IMPACT OF COMPUTERS ON ORGANIZATIONS

The information Processing Industry

The Positive impact on Using Organizations

The Potential Dangers for Using Organizations

1. Search for the word "Computer" in the entire document. All the occurrences of the given word are

to be searched irrespective of the case.

2. In the above question note that word also searches "computerization and 'computerisations'. Now

make sure that this time Word searches only for the word "computer" in the entire document.

3. Change the entire uppercase letter to lowercase.

4. Centre aligns the heading text Computer that appears in first line.

5. Apply outside border to entire document.

6. Apply outside border to the just heading text.

7. Change page setup according to the following specifications

Top margin: 1.5", bottom margin: 1.5"

Gutter: 1", left margin: 1.5"

Right margin: 1"

Page width: 7.5", page height: 6.5"

Orientation: portrait

8. Give a header "Creations" and footer "The school of computing". The footer should also consist of page no's.

9. Give appropriate commands for giving different header and footers for first page and odd & even pages.

10. Save and close the document.

3. Write the following equations in MS-Word:



4. Write the following equations in MS-Word:



5. Write the following in MS-Word:

1. Preheat the oven to 220°C.

2. Copyright ©

3. Registered ®

4. Trademark ™

6. Create the following table in MS-Word

Name	Roll No.	Max	Obtain
		100	101
Subject		100	75
Java		100	55
Multimedia		100	50



छत्तीसगढ़ युवा विकास संगठन शिक्षण समिति द्वारा संचालित  
(उच्च शिक्षा विभाग से मान्यता प्राप्त एवं पं. रविशंकर शुक्ल विश्वविद्यालय से स्थायी संबन्ध)  
विप्र कला वाणिज्य एवं शारीरिक शिक्षा महाविद्यालय

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PT. RAVISHANKAR SHUKLA UNIVERSITY, RAIPUR (C.G.)

POST GRADUATE DIPLOMA IN COMPUTER APPLICATION 2022-2023  
[DURATION – ONE YEAR – FULL TIME]

SCHEME OF TEACHING AND EXAMINATIONS  
P.G.D.C.A. (Post Graduate Diploma in Computer Applications)

**FIRST SEMESTER**

Subject Code	SUBJECTS	Teaching Load Per Week			Examination Marks							
					Max. Marks				Min. Marks			
		L	T	P	Th	Ses	Pr	Total	Th	Ses	Pr	Total
PGDCA101	Fundamentals of Computers	3	2	-	80	20	-	100	20	13	-	33
PGDCA102	Office Automation	3	2	-	80	20	-	100	20	13	-	33
PGDCA103	Programming in C	3	2	-	80	20	-	100	20	13	-	33
PGDCA104	Practical based on PGDCA-102	-	-	3x2	-	-	100	100	-	-	40	40
PGDCA105	Practical based on PGDCA-103	-	-	3x2	-	-	100	100	-	-	40	40
	<b>TOTAL</b>	<b>9</b>	<b>6</b>	<b>12</b>	<b>240</b>	<b>60</b>	<b>200</b>	<b>500</b>	<b>60</b>	<b>39</b>	<b>80</b>	<b>179</b>

*[Signature]*

*[Signature]*

*[Signature]*



11

प्रपत्र

विषय/संकाय/प्रश्न-पत्र का नाम— **B.Com.(Computer Application)**

क्रमांक	कक्षा का नाम	वर्तमान पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम का औचित्य
1.	1 <sup>st</sup> Year	COMPUTER FUNDAMENTALS AND OFFICE AUTOMATION	COMPUTER FUNDAMENTAL	Updation Required
2.	1 <sup>st</sup> Year	COMPUTERIZED FINANCIAL ACCOUNTING	PC SOFTWARE AND MULTIMEDIA	Updation Required
3.	1 <sup>st</sup> Year	PRACTICAL	PRACTICAL	Updation Required
4.	2 <sup>nd</sup> Year	INTERNET APPLICATION & E-COMMERCE	INTERNET APPLICATION & E-COMMERCE	No Change
5.	2 <sup>nd</sup> Year	RELATIONAL DATABASE MANAGEMENT SYSTEM	RELATIONAL DATABASE MANAGEMENT SYSTEM	No Change
6.	2 <sup>nd</sup> Year	PRACTICAL	PRACTICAL	No Change
7.	3 <sup>rd</sup> Year	PROGRAMMING IN VISUAL BASIC	PROGRAMMING IN VISUAL BASIC	No Change
8.	3 <sup>rd</sup> Year	SYSTEM ANALYSIS, DESING & MIS	SYSTEM ANALYSIS, DESING & MIS	No Change
9.	3 <sup>rd</sup> Year	PRACTICAL	PRACTICAL	No Change

केन्द्रीय अध्ययन मंडल के अध्यक्ष एवं सदस्यों का हस्ताक्षर

S.N.	Name	Designation/University/College	Signature with Date
1.	Dr. Sanjay Kumar	Head, S.o.S. in Computer Science & I.T., Pt. R.S. University, Raipur	 11-06-2018
2.	Mr. Hari Shankar Prasad Tonde	Head, Dept. of Computer Science, Sarguja University, Ambikapur	 11-06-18
3.	Dr. Anuj Kumar Dwivedi	Head, Dept. of Computer Science, Govt. V.B.S.D. Girls College, Jashpur Nagar, Jashpur	 11/6/2018
4.	Mr. L.K. Gavel	Head, Dept. of Computer Science, Govt. G.S.G. P.G. College Balod	 11/06/18
5.	Dr. J. Durga Prasad Rao	Head, Dept. of Computer Science, Shri Sankracharya Mahavidyalaya, Bhilai	 11/6/18

COMPUTER APPLICATION

MARKS DISTRIBUTION

Theory Paper	Paper - I	Total Marks - 50
	Paper - II	Total Marks - 50
Every unit of Theory Paper will consists of 10 Marks.		
Practical Paper		Total Marks - 50
Practical Marks Distribution :	Viva - 10	
	Internal - 15	
	Practical - 25	
Practical Test will consist of 3 Hrs.		<u>Total Marks - 150</u>

PAPER - I

PROGRAMMING IN VISUAL BASIC

(Paper Code-1165)

UNIT-I Introduction to Visual Basic, Programs, Variables

Editions of Visual Basic, Event Driven Programming, Terminology, Working environment, project and executable files, Understanding modules, Using the code editor window, Other code navigation features, Code documentation and formatting, environment options, code formatting option automatic code completion features. Introduction to objects, Controlling objects, Properties, methods and events, Working with forms, interacting with the user: MsgBox function, InputBox function, Code statements, Managing forms, Creating a program in Visual Basic, Printing, Overview of variables, User-defined data types, constants working with procedures, Working with dates and times, Using the Format Function, Manipulating text strings.

UNIT-II Controlling Program Execution, Working with Control

Comparison and logical operators, If...Then statements, Select Case Statements looping structures, Using Do...Loop structures, For...Next statement, Exiting a loop. Types of controls, Overview of standard controls, ComboBox and ListBox, OptionButton and Frame controls Menu, Status bars, Toolbars, Advanced standard controls, ActiveX controls, Insertable objects, Arrays, Dynamic Arrays.

UNIT-III Procedure, Function Error Trapping & Debugging

Procedure, Function, call by value, call by reference, Type definition, with object, Validation, Overview of run-time errors, error handling process, The Err object, Errors and calling chain, Errors in an error-handling routine, Inline error handling, Error handling styles, General error-trapping options Type of errors, Break mode Debug toolbar, Watch window, Immediate window, Local window, Tracing Program flow with the Call Stack.

B.Com.-Part-III

*Suman*  
11-06-2018  
Dr. Sanjay Kumar

*Anuj*  
11/6/18  
(Dr. A.K. Dwivedi)

*Praveen*  
11/06/18  
C.L.K. Gaur

*Yash*  
11-06-18  
Hari Kantan Prasad Tangle  
(Dr. Jyoti Prasad Rao)

**UNIT-IV Sequential and Random Files :**

Saving data to file, basic filling, data analysis and file, the extended text editor, File organization Random access file, The design and coding, File Dialog Box, Picture Box, Image box, Dialog Box, using clipboard, Copy, Cut, Paste of Text & Picture in Clipboard, Use of Grid Control Multiple document interface, Single document interface.

**UNIT-V Data Access Using the ADO Data Control & Report Generation**

Overview of ActiveX data Objects, Visual Basic data access features, Relational database concepts Using the ADO Data control to access data, Overview of DMO, RDO, Data Control, structured query language (SQL), Manipulating data Using Data Form Wizard. Overview of Report, Data Report, Add groups, Data Environment, Connection to database Introduction to Crystal Report Generator.

**BOOK REFERENCE :**

- 1 Visual Basic Programming - Reeta Sahu, B.P.S. Publication.
- 2 Mastering in Visual Basic - By BPB Publications.
- 3 Visual Basic Programming - Mark Brit.

**PAPER - II**

**SYSTEM ANALYSIS, DESIGN & MIS**

(Paper Code-1166)

**UNIT-I Introduction -**

Systems Concepts and the information systems environment : Definition of system, Characteristics of system, elements of system, types of system, The system Development life cycle : consideration of candidates system. The Role of system Analyst : Introduction, the multiphase role of the analyst, the analyst / user interface, the place of the analyst in the MIS Organization.

**UNIT-II System Analysis, Tools of Structured Analysis, Feasibility Study-**

System Planning and initial investigation : Basis for planning in systems analysis, initial investigation, fact finding, fact analysis, determination of feasibility.

Information Gathering : Kind of information, Information gathering tools.

Structured Analysis, Flow chart, DFD, Data Dictionary, Decision Tree, Structured English, Decision Table. System Performance, Feasibility Study, Data Analysis.

**UNIT-III System Design & System Implementation -**

The process of Design Methodologies. Input Design, Output Design, Form Design, File Structure, File organization, data base design, System Testing, the test plan, quality assurance, data processing auditor. Conversion, Post implementation review, Software Maintenance.

B.Com. -Part-III

*Sumit*  
11-06-2018

*Dr. Anuj Kumar*

*Anuj*  
11/06/18  
(Dr. A.K. Deivedi)

*Garul*  
11/06/18  
(L.K. Garul)

(23)  
*Har*  
11-06-18  
Hari Shankar Prasad Pandey

*Hari*  
11/6/18

*H.N. Datta*



**UNIT-IV Introduction to MIS & Other Subsystem-**

Evolution of MIS, Need of MIS, Definition & Benefits of MIS, Characteristic, Role component of Information system, data base as a future of MIS, Decision making, logic of Management Information system, Structure of MIS.

**UNIT-V Information System Concept -**

Difference between Transaction Processing System (TPS) and Management Information System, How MIS works, MIS and Information Resource Management, Quality information Building Blocks for the information system, information system concept, Other system characteristic (Open & Closed System), difference between MIS & Strategic System, Adaptive system, Business function information system.

**BOOK REFERENCE :**

- 1 System Analysis and Design - Elias M. Awad.
- 2 System Analysis and Design - Alan Dennis & Barbara Haley Wixco.
- 3 Management Information systems - C.S.V. Murthy, Himalaya Publication House.

**PAPER - III**

**PRACTICAL EXERCISES BASED ON PAPER I & II**

**Practicals to be done -**

- 1 At least 20 practical - exercises covering the contents of paper - I (e.g. Designing calculator, sorting of elements, Generating Fibonacci series)
- 2 Design the Project on one of the following - Application Software / Website Design/ Accounting software / Inventory control System / System Software & other (e.g. Library Management System, Medical management, Stock Management, Hotel Management, Website for your institute / Website of any Organization)
- 3 The Project Report cover the following topic - Objective, Hardware & Software Requirements, Analysis, Design, Coding, input forms, testing, Reports, Future enhancement of s/w.
- 4 Practical exam is based on the Project Demonstration & report.

B.Com. -Part-III

*Simon*  
11-06-18  
(Dr. Suresh Kumar)

*Anuj*  
11/6/18  
(Dr. A.K. Desai)

*Gaur*  
11/06/18  
(L.K. Gaur)

*J.P.*  
11.06.18  
Hari Shankar Prasad Tanti  
1 Dr. J. Dey





**PT. RAVISHANKAR SHUKLA UNIVERSITY RAIPUR (C.G.)**

**B.Ed. SYLLABUS 2023-25**

Paper No	PAPER NAME	EXTERNAL	INTERNAL
			THEORY/PRACTICAL
<b>SEMESTER I</b>			
	<b>THEORY</b>		
Paper 1	Philosophical Perspectives of Education	80	20
Paper 2	Nai Talim: An Experiential Learning	80	20
Paper 3	Pedagogy Part I	80	20
	<b>PRACTICUM</b>		
	Preparation of Teaching Aids 01. Minimum 6 charts on school contain 02. Minimum 5 sets of Transparency to Transact school content 03. Minimum 2 Power Point Presentations to transact school content 04. Minimum one static model to aid school teaching content		50
	Community Activities 1. Village Survey 2. Awareness Rally/Program		50
<b>SEMESTER II</b>			
	<b>THEORY</b>		
Paper 4	Sociological Perspectives of Education	80	20
Paper 5	Learner and Learning Process	80	20
Paper 6	Elective I	80	20
Paper 7	Curriculum and Knowledge	80	20
	<b>PRACTICUM</b>		
	Micro Teaching on Skills of Teaching Internship (Two weeks) School Experience a) Observation of School Documents b) Mentor's Report		50
<b>SEMESTER III</b>			
	<b>THEORY</b>		
Paper 8	Pedagogy Part II	80	20
Paper 9	Nai Talim: Skill Based Learning	80	20
	<b>PRACTICUM</b>		
	Internship (Eighteen Weeks)		100
	Reflective Diary & Supervisor's Assessment		50
<b>SEMESTER IV</b>			
	<b>THEORY</b>		
Paper 10	Gender, School and Society	80	20
Paper 11	Assessment in Learning	80	20
Paper 12	Elective II	80	20
	<b>PRACTICUM</b>		
	Training in Yoga and Sports & Games		50
	Psycho-Metric Assessment	50	
	Viva Voce on Teaching Experience	100	
	<b>TOTAL</b>	1110	240 + 350 = 590
	<b>GRAND TOTAL</b>	1700	






# Curriculum Framework

## B.ED. TWO YEAR COURSE 2023-25

Curriculum Organization based on NCTE framework			
Semester I	Semester II	Semester III	Semester IV
THEORY	THEORY	THEORY	THEORY
(C) Philosophical perspectives of Education (4 credits)	(C) Sociological perspectives of Education (4 credits)	(S) Pedagogy II (4 credits)	(C S) Gender, School & Society (4 credits)
(C) Nai Talim: An Experiential Learning (4 credits)	(C) Learner & Learning Process (4 credits)	(T E) Nai Talim: Skill Based Learning (2 credits)	(T E) Assessment in Learning (4 credits)
	(E) Elective I (4 credits)		(E) Elective II (4 credits)
(S) Pedagogy I (4 credits)	(T E) Curriculum & Knowledge (2 credits)		
PRACTICUM	PRACTICUM	PRACTICUM	PRACTICUM
Preparation of Teaching Aids (2 credits)  Community Activities (2 credits)	Internship (2 Weeks) (2 credits)  School Experience I (2 credits) a) Observation report of school documents b) Mentor's Report. c) Micro Teaching	Internship (18 Weeks) (12 credits)  Reflective Diary (2 credits)  Supervisor's Assessment (2 credits)	Training in Yoga and Sports (2 Credits)  Psycho-Metric Assessment (2 credits)  Teaching Exam & Viva Voce on Teaching
<b>12 + 4 = 16 Credits</b>	<b>14 + 4 = 18 Credits</b>	<b>6 + 16 = 22 Credits</b>	<b>12 + 4 = 18 Credits</b>
<i>C: Core Paper, E: Elective Paper, TE: Teacher Enrichment, CS: Contemporary Study</i>			

### PSYCHOLOGY PRACTICALS

At least 5 practical's have to be conducted. Out of which 2 is compulsory.

01. Aptitude Test in any school subject (Compulsory)
02. Case Study to measure the problematic behavior of the child (Compulsory)
03. Achievement Test in any school subject with findings difficulty level only
04. Value Test
05. Reasoning Ability Test
06. Testing Individual differences/ Intelligence Test
07. Transfer of Learning
08. Span Of Attention

Note: "Subject" is compulsory to be present with the trainee during the annual Psychometric Practical Examination.

### TEACHING PRACTICALS

During Annual Teaching Viva voce Practical Exam it is compulsory to produce all teaching related work from Semester I to III.

18 Lesson plan (9 each from Middle and High School) including 08 lesson plan is compulsory from the Nai Talim formate). (10 Lesson Plan+8 Nai Talim=18)

Note: Formate has been given at the end of the syllabus.



## B.ED. SYLLABUS (SEMESTER I)

### PAPER - I

#### PHILOSOPHICAL PERSPECTIVE OF EDUCATION

MARKS 80

#### Aims of the Course:

##### To enable the student- teacher to understand

1. The relationship between Philosophy and Education and implications of philosophy on education.
2. The importance and role of education in the progress of Indian society.
3. The contribution of great educators to the field of education.
4. The need to study education in a sociological perspective. The process of social change and socialization to promote the development of a sense of commitment to the teaching profession and social welfare.
5. Their role in creation of a new social order in the country and learn about various social welfare opportunities in which they can participate helpfully.
6. The means and measures towards the promotion of National integration and protection of human rights.

#### Course Outline:

##### UNIT-I: AIMS OF EDUCATION

- Education Nature and Meaning its objectives/ aims in relation to the time and place.
- Educational aims in the Western context: with specific reference to Russell, Dewey. Their impact on educational thought and class room practices, in term of progressive trends in education.
- Educational aims in the Indian context with specific reference to Indian thinkers such as Gandhi, Tagore.
- Philosophy and Education: Significance of studying philosophy in understanding educational practices and problem.

##### UNIT - II: PHILOSOPHICAL SYSTEMS

Major Philosophical systems - their salient features and their impact on education.

- Realism with reference to Aristotle and Jainism.
- Naturalism with reference to the view! of Rousseau and Rabindra Nath Tagore.
- Idealism with reference to Plato, Socretes and Advaita Philosophy.
- Pragmatism with reference to Dewey "instrumentalism & Experimentalism"

 R. L. Kumar







- Humanism: Historical, Scientific and Buddhists.

### UNIT-III : INDIAN THINKERS

- Educational thinkers and their contribution in developing principles of education.
- M.K. Gandhi Basic tenets of Basic education.
- Gijju Bhai The world of the child.
- Swami Vivekananda : Man making education.
- Sri Aurobindo Integral education, its basic premises; stages of development.
- J. Krishna Murthy; Child Centered Education.

### UNIT - IV: WESTERN THINKERS

- JJ Rousseau
- John Dewey
- Antonio Gramsci ( Neo- Gramscian Theory)
- Paulo Friere (Democratic Education)

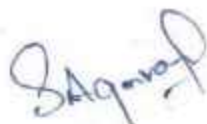
### UNIT - V: CONTEMPORARY THOUGHT

- Critical and comparative study of the period and socio- political perspective of the western and Indian Thinkers.
- Contemporary philosophical perspectives of Education; Modernization, globalization in thought and education

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 R. L. Wani

 S. A. G. Wani

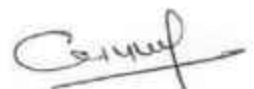
 C. M. Wani



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 R. L. Wani

 S. Aggarwal

 S. Aggarwal

**PAPER II****NAI TALIM: AN EXPERIENTIAL LEARNING****MARKS 80****Aims of the Course:****To enable the student-teacher to understand**

1. Understand the concept of local community engagement in teacher education
2. Understand the context of the child from various backgrounds & occupations.
3. Know the school education programs and policies which have local community engagement aspects.
4. Learn the process of connecting the text with the Child/learner within the local Context
5. Distinguish traditional from constructivist approaches of local community engagement
6. Train in usage of dialogic method of community engagement
7. Train in usage of organic intellectual approach for local community engagement
8. Experiential learning of best practices in community engagement
9. Participate effectively in the local community service
10. Develop insights and field realities on indignity and indigenous models.
11. Understand and practice models of Tagore, Gandhi, Shyama Prasad Mukkherji for rural reconstruction
12. Explore models of art, craft for entrepreneurship for self-reliance.
13. Understand various real, community stories of children, families.
14. Discover latent talents in the traditional occupations to promote them
15. Devise contextually suitable engagement activities.
16. Promote local occupations with literacy, technology integration and research to develop entrepreneurs

**Unit I: Nai Talim- An Introduction**

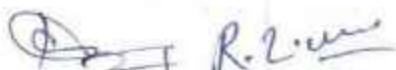
- Introduction of Nai Talim and its significance in Indian context, historical perspectives.
- Concept, Aims, Objectives and Scope of Nai-Talim
- Main Principles of Basic Education
- Nai Talim in NCF-2005, NCFTE-2010, RTE-2009 and its Educational Implication

**Unit II: Social and Philosophical Perspectives of Nai Talim**

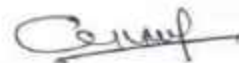
- Gandhian thoughts and Philosophy
- Gandhian Philosophy and Aims of Education
- Models of Education, Approach to Learning- Constructivism, Paulo Freire Critical Pedagogy and Dialog Method
- Course outline at Primary, Middle and Secondary Level

**Unit III: Work Based Learning and Community Involvement**

- Principle of Community Involvement
- Nai Talim and Craft Education
- Nai Talim and Moral Education
- Agencies of School & Society
- Self Help Groups

 R. L. Kumar

 S. S. Singh

 S. S. Singh

**Unit IV: Planning and Organization of Skill Development**

- Methods of Skill Development
- Establishment of Experimental Education and Rural Education
- Connecting Knowledge to life outside the School.
- Execution of digitalization
- Importance of Renewable Energy

**Unit V: Health & Hygiene**

- Nutrition - Balance Diet
- Communicable and non communicable Disease & its Prevention
- First Aid
- Personal & Community Hygiene

**Practicum**

- Panel discussion
- Group Project
- Village Involvement - Gram Sabha, Panchayat
- Interaction with different cottage industry workers
- Craft work and exhibition for social work

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## PEDAGOGY (Part I)

SEMESTER - I

PAPER-III

## PEDAGOGY TEACHING OF HINDI

(हिंदी भाषा शिक्षण)

MARKS 80

## एक परिचय

राष्ट्रीय पाठ्यचर्या की रूपरेखा 2005 अमयापकों की भूमिका में एक बड़ी तब्दीली की मांग करती है। पाठ्यचर्या में अब तक अमयापकों को ही ज्ञान के स्रोत के रूप में केन्द्रीय स्थान मिलता रहा है, वह सीखने-सिखाने की समूची प्रक्रिया के संरक्षक और प्रबंधक के रूप में मुख्य भूमिका निभाने का काम करते आए हैं। पर 2005 की स्कूली पाठ्यचर्या उनसे मांग करती है कि वे सूचनाओं के वितरक और ज्ञान के स्रोत बन कर न रहें बल्कि विद्यार्थियों द्वारा ज्ञान हासिल करने की प्रक्रिया में स्वयं को सहायक मानें। वे विद्यार्थियों को शिक्षा-प्रक्रिया में सक्रिय भागीदार के रूप में देखें और उनके सवालों को सुनने और समझने की जरूरतों को समझें। इन सब तब्दीलियों को उनके व्यवहार का हिस्सा बनाने के लिए जरूरी है कि अध्यापक शिक्षा के पाठ्यक्रम में बदलाव आए। स्कूली व्यवस्था में बदलाव की पहल तभी संभव है जब इस व्यवस्था से जुड़े लोगों के दृष्टिकोण में परिवर्तन आए और अध्यापक की भूमिका इस व्यवस्था में सबसे महत्वपूर्ण है। इस दृष्टि से भाषा-शिक्षण का पाठ्यक्रम और भी महत्वपूर्ण हो जाता है क्योंकि भाषा पूरी शिक्षा की जमीन तैयार करती है जहां सिर्फ भाषा पढ़ना सीखना नहीं बल्कि भाषा के जरिये और विषयों में भी निपुणता हासिल करने की बात आती है। इसके साथ ही भाषा से जुड़े नए मुद्दे जैसे बहुभाषिक कक्षा, समझ का माध्यम, शांति की शिक्षा में भाषा की भूमिका आदि की समझ अध्यापकों के लिए जरूरी है जो अध्यापक शिक्षा में व्यापक बदलाव की मांग करते हैं। यह पाठ्यक्रम भाषा के नए सरोकारों और सीखने-सिखाने की नई दृष्टियों को म्यान में रखकर तैयार किया गया है। हमें आशा है कि प्रशिक्षु अध्यापकों को इससे भाषा-शिक्षण की तैयारी में सहायता मिलेगी।

## हिंदी भाषा-शिक्षण का पाठ्यक्रम

## पाठ्यक्रम के विशेष उद्देश्य

- भाषा के अलग-अलग भूमिकाओं को जानना
- भाषा सीखने की सृजनात्मक प्रक्रिया को जानना
- भाषा के स्वरूप और व्यवस्था को समझना
- स्कूल की भाषा, बच्चों की भाषा और समझ के बीच के संबंध को जानना
- भाषा के संदर्भ में पढ़ने के अधिकार, शांति और पर्यावरण के प्रति सचेत होना
- भाषा सीखने के तरीके और प्रक्रिया को जानना और समझना
- पाठ्यचर्या, पाठ्यक्रम और पाठ्यपुस्तक का विश्लेषण कर कक्षा विशेष और बच्चों की समझ के अनुसार ढालना
- भाषा और साहित्य सम्बंध को जानना



- हिंदी भाषा के विविध रूपों और अभिव्यक्तियों को जानना
- भावों और विचारों की स्वतंत्र अभिव्यक्ति करना
- भाषायी बारीकियों के प्रति संवेदनशील होना
- अनुवाद के महत्व और भूमिका को जानना
- विद्यार्थियों की सृजनात्मक क्षमता को पहचानना
- बच्चों के भाषायी विकास के प्रति समझ बनाना और उसे समुन्नत करने के लिए विद्यालय में तरह-तरह के मौके जुटाना
- भाषा के मूल्यांकन की प्रक्रिया को जानना
- साहित्यिक और गैर साहित्यिक मौलिक रचनाओं की समझ और सराहना
- भाषा सीखने-सिखाने के सृजनात्मक दृष्टिकोण को समझना

#### Course Outline:

#### इकाई - 1: भाषा की भूमिका

(बच्चा जब स्कूल आता है तो उसके पास भाषा का एक रूप मौजूद होता है। कक्षा में बच्चों की भाषा इस रूप को सम्मान देने से उसका आत्मविश्वास बढ़ेगा, यह सीखने की बुनियाद है।)

- 1 समाज में भाषा - भाषा और लिंग, भाषा और सत्ता भाषा और अस्मिता, भाषा और वर्ग
- 2 विद्यालय में भाषा - घर की भाषा और स्कूल की भाषा, समझ का माध्यम (बच्चे की भाषा) समूचे पाठ्यक्रम में भाषा, ज्ञान सृजन और भाषा, माध्यम भाषा: एक आलोचनात्मक दृष्टि, विषय के रूप में भाषा और माध्यम भाषा में अंतर, विविध भाषिक प्रयुक्तियाँ बहुभाषिक कक्षा, शिक्षक-शिक्षार्थी संबंध के पहलू के रूप में भाषा
- 3 संविधान और शिक्षा समितियों के रिपोर्ट में भाषा - भाषाओं की स्थिति (धारा 343-351, 350 I) कोठारी कमीशन (64 से 66) राष्ट्रीय शिक्षा नीति - 1986, पी.ओ. 2005 (भाषा अमययन) ए-1992, राष्ट्रीय पाठ्यचर्या -

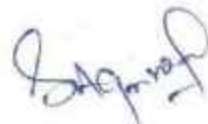
#### गतिविधि/पोर्टफोलियो

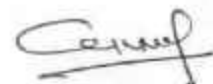
#### प्रशिक्षण के दौरान

छोटे समूह में बांट कर भारतीय भाषाओं के लिए निर्मित पोजीशन पेपर का अध्ययन और उस पर चर्चा।

- विज्ञान, समाज विज्ञान और गणित की कक्षा VI से VII की किताबों से कुछ अंश चुनकर निम्नलिखित बिंदुओं को ध्यान में रखते हुए विश्लेषण करिए-
- विभिन्न भाषिक प्रयुक्तियों को कैसे प्रस्तुत किया गया है।
- उस अंश में प्रयुक्त भाषा विषय संबंधी भाव स्पष्ट करने में कहीं तक समर्थ है।
- बच्चे के स्तर के अनुरूप हैं?







- क्या इसमें तकनीकी भाषा का बहुत इस्तेमाल किया गया है ?
- क्या यह भाषा सीखने में सहायक है?

### कक्षा-शिक्षण के दौरान

- कक्षा-शिक्षण के दौरान बच्चों के परिवेश और उनकी भाषा के बारे में जानकारी प्राप्त करें और बहुभाषिकता को स्रोत के रूप में इस्तेमाल करते हुए हिंदी शिक्षण की एक कक्षा-प्रविधि तैयार करें

### परियोजना कार्य

- संविधान में भारतीय भाषाओं संबंधी अनुसंधारें तथा राष्ट्रीय शिक्षा नीति, पी.ओ.ए. द्वारा संस्तुत भाषा संबंधी सिफारिशों पर एक रिपोर्ट तैयार करना ।
- कक्षा छह से बारह तक के हिंदी की किताबों में लिंग और शांति संबंधी बिदुओं की सूची तैयार कर उसके लिए कक्षा प्रविधि तैयार करना ।
- अपने आस-पास के पांच स्कूलों का दौरा कर यह जानकारी प्राप्त करते हुए एक रिपोर्ट तैयार करें कि त्रिभाषा सूत्र की क्या स्थिति है?

### इकाई - 2: हिंदी भाषा की स्थिति और भूमिका

हिंदी भाषा की भूमिका: स्वतंत्रता से पहले और स्वतंत्रता के बाद हिंदी , हिंदी के विविध रूप, अंतर्राष्ट्रीय स्तर पर हिंदी , ज्ञान की भाषा के रूप में हिंदी , हिंदी पढ़ने-पढ़ाने की चुनौतियों ।

### गतिविधि/पोर्टफोलियो

#### प्रशिक्षण के दौरान

- स्वातन्त्र्योत्तर भारत में हिंदी की भूमिका पर समूह में चर्चा करें।
- जब शब्द नहीं रहते तब शस्त्र उठते हैं विषय पर परिचर्चा का आयोजन

#### कक्षा-शिक्षण के दौरान

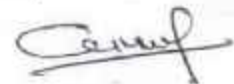
- चुने हुए कुछ कक्षाओं में बच्चों की भाषा का जायजा लेते हुए हिंदी के विविध रूपों पर एक रिपोर्ट तैयार करें।
- रोजमर्रा की जिंदगी में प्रयोग होने वाली कम से कम बीस क्रियाओं , जैसे नहाना, आना, पकाना, जाना आदि को कक्षा में मौजूद बच्चे किस-किस तरह से प्रयोग करते हैं - इस आधार पर सूची बनाएँ

### परियोजना कार्य

- इस इकाई में दिए गए विषयों को ध्यान में रखते हुए एक प्रश्नावली तैयार करें, दस व्यक्तियों का साक्षात्कार करे इस साक्षात्कार के आधार पर हिंदी की स्थिति पर एक रिपोर्ट लिखें।

 R. L. Singh

 Anand

 Anand

पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर (छत्तीसगढ़)

एम.कॉम. सेमेस्टर परीक्षा

पाठ्यक्रम (सत्र 2023-25 से लागू)

M.Com. I<sup>st</sup> Semester

प्रश्न पत्र	प्रश्न पत्र का नाम	पूर्णांक	पेपर कोड
प्रश्नपत्र I Paper I	प्रबंधकीय अर्थशास्त्र Managerial Economics	80 + 20	101
प्रश्नपत्र II Paper II	वृद्धत (उच्चतर) लेखांकन Advanced Accounting	80 + 20	102
प्रश्नपत्र III Paper III	आयकर विधान एवं लेखे (Income Tax Law and Accounts)	80 + 20	103
प्रश्नपत्र IV Paper IV	सांख्यिकीय विश्लेषण Statistical Analysis	80 + 20	104
प्रश्नपत्र V Paper V	निगमित विधि संरचना Corporate Legal Framework	80 + 20	105

M.Com. II<sup>nd</sup> Semester

प्रश्न पत्र	प्रश्न पत्र का नाम	पूर्णांक	पेपर कोड
प्रश्नपत्र VI Paper VI	व्यावसायिक अर्थशास्त्र Business Economics	80+20	201
प्रश्नपत्र VII Paper VII	विशेषीकृत लेखांकन Specialized Accounting	80+20	202
प्रश्नपत्र VIII Paper VIII	कर नियोजन एवं प्रबन्ध (Tax Planning and Management)	80+20	203
प्रश्नपत्र IX Paper IX	उच्चतर सांख्यिकी Advanced Statistics	80 + 20	204
प्रश्नपत्र X Paper X	व्यावसायिक सन्निधम Business Law	80 + 20	205

*(Signature)*

(1)

*Riv*  
05.07.19



पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर (छ.ग.)

**M.Com. Syllabus**  
(Semester & Annual Pattern)  
Session 2023-25

सत्र 2021-22 का पाठ्यक्रम 2022-23 हेतु संशोधन प्रभावशील किया गया है।

# BBA

## SYLLABUS

### Session : 2023-25

**Pt. Ravishankar Shukla University  
Raipur (CG)**

**Proposed Marking Scheme for BBA Course  
Academic Session 2016-17  
Course Content of BBA**

<b>SEMESTER ONE</b>	<b>Internal Marks</b>	<b>Sem. Exam Marks</b>	<b>Total Marks</b>
101. English	10	90	100
102. Computer Application	10	90	100
103. Business Mathematics	10	90	100
104. Principles of Management	10	90	100
105. Financial Accounting	10	90	100
<b>SEMESTER TWO</b>			
106. Hindi	10	90	100
107. Business Economics	10	90	100
108. Business Statistics	10	90	100
109. Cost Accounting	10	90	100
110. Environmental Studies	10	90	100
<b>SEMESTER THREE</b>			
111. Managerial Economics	10	90	100
112. Business Communication	10	90	100
113. Business Laws	10	90	100
114. Business and Environment	10	90	100
115. Management Information System (MIS)	10	90	100
<b>SEMESTER FOUR</b>			
116. Organisational Behaviour	10	90	100
117. Marketing Management	10	90	100
118. HRM	10	90	100
119. Financial Management	10	90	100
120. Production Management	10	90	100
121. Comprehensive Viva	10	90	100
<b>SEMESTER FIVE</b>			
122. Marketing Research	10	90	100
123. Quantitative Techniques	10	90	100
124. Sales and Advertisement Management	10	90	100
125. Investment Management	10	90	100
126. Material Management	10	90	100
<b>SEMESTER SIX</b>			
127. Business Policy and Strategy	10	90	100
128. Entrepreneurship and Small Business Management	10	90	100
129. Business Taxation	10	90	100
130. Business Ethics and Social Responsibility	10	90	100
131. Project Report and Viva – Voce	10	90	100