Vivekananda School of Information Technology

Branch/Sem: BCA-FIRST SEMESTER Subject :- C Programming Lab BCA 151

LIST OF PRACTICALS

Note: All students are required to conduct the listed practical and include the solutions in the Practical file. These are to be conducted along with the coverage of syllabus in the classroom.

STUDENTS ARE REQUIRED TO GET THEIR PRACTICAL FILES CHEKED ON WEEKLY BASIS.

Unit no	Application Area/ Concept on which practical is based	Problem Statement
Unit-1	Use of scanf(), printf(), Variable initialization and declaration. Use of arithmetic, relational, conditional, logical operators.	1. Program to find area and circumference of circle. 2. Program to swap of two no's using third variable. 3. Program to swap of two no's without using third variable 4. Program to calculate the gross salary for any basic salary entered through keyboard where dearness allowance is 40% of the basic salary and house rent allowance is 20% of the basic salary. 5. A grocery shop decides to give its customers a discount on the total purchases if it exceeds Rs. 1000. The quantity purchased and price per item is entered through the keyboard. WAP to calculate the final sales bill. 6. WAP to find out the sum of two numbers without using + operator.
Unit-1	Use of if ,if-else, nested if-else, switch statement , For loop, While ,do-while loop, continue, goto, break	7. Program to find greatest of 3 numbers 8. WAP to determine whether a given number is "odd" or "even" 9. Program to display first 10 natural no & their sum. 10. With the help of a menu driven program, implement a Calculator and to determine whether a given year is a leap year or not using && and || operators. 11. Program to calculate the grade of a student according to marks obtained in 5 subjects. on the basis of their percentage. **% Grade** >=70 First Between 50 to 69 Second Between 40 to 59 Third < 40 Fail 12. Program to print a table of any number.

		13. Program to print Fibonacci series up to 100 14. Program to reverse a given number. 15. Program to find the sum of digit of a given number. 16. Program to find factorial of a number. 17. Program to check whether a given no is Armstrong or not 18. WAP to generate first N prime numbers. 19. Program to find whether given no is a prime no or not. 20. Program to print the following patterns. No. Of rows are taken by the user. a) * b) 0 c) 1 d) A * * 1 1 2 3 A B * * * 2 2 2 4 5 6 (Floyd's Triangle) A B C
Unit-I	1-D array	21. Program to find the maximum no. from an array of 10 nos. 22. Program to read 'n' integer numbers and find out how many numbers of them are positive, negative and zero. 23. Program to search a given number from a list of 'n' numbers using Linear Search. 24. Program to sort the list of n numbers using selection sort.
Unit-II	Function, call by value, Call by reference, Recursion	25. Write a user defined function to find largest of 3 numbers. 26. Write a menu driven program to perform following operations on strings using functions: a) Concatenate two strings b) Compare two strings. c) Copy one string to another string. d) Calculate the length of the string e) find out string is palindrome or not. 27. Write a menu driven program that swap two numbers using call by reference and call by value. 28. Write a program to find the factorial of a number using recursive function.
Unit-II	pointer	29. Program using pointers to compute the sum of all integer elements stored in an array. 30. Program using pointers to determine the length of a Character strings. .
Unit-II	2-D array	31. Write a menu driven program to perform following operations on 2DArray using functions:

		a) Transpose of a matrix . b) Sum of two matrices. c) Multiplication of two matrices. d) Sum of diagonal elements of a matrix.
Unit-II	pre-processor/macros	32. Program to calculate area of rectangle, square and circle using macros.
Unit-III	Structure, File handling	33. Program to show how to access the elements of nested structure. 34. Program to read the numbers from a file and save the even numbers in a file named EVEN and odd numbers in a file named ODD. 35. Program to create a file STUDENT that contains information about a student. It consists of rollno, name and address. Program should also print all the records.
Unit-IV	Library function	36. Program that implements command line arguments. 37. Program that illustrates different standard library functions.

VIVEKANANDA INSTITUTE OF PROFESSIONAL STUDIES

VIVEKANANDA SCHOOL OF INFORMATION TECHNOLOGY

योगः कर्मसु कौशलम्
IN PURSUIT OF PERFECTION

BACHELOR OF COMPUTER APPLICATION

INTRODUCTION TO PROGRAMMING LANGUAGE USING C

Guru Gobind Singh Indraprastha University
Sector - 16C, Dwarka, Delhi - 110078

SUBMITTED TO:

DR. NEETU GOEL
Assistant Professor
VSIT

SUBMITTED BY:
<Name of the Student>
<Course with section>

<Enrollment No: _____>