

LALITPUR ENGINEERING COLLEGE

(C-PROGRAMMING PROGRAM QUESTION)

1. WAP in c to read integers from user until user say “no”. After reading the data write all the odd numbers to a filename odd.txt and all even numbers to a file named even.txt.
2. WAP to read name and roll number of 48 students from user and store them in file name student.txt. If the file already contain data, your program should add new data set at the end of file.
3. WAP to read info of a file named data.txt and write its content to another file record.txt.
4. WAP to write name, address, roll no, and age of five student into a disk file name “student.txt”.
5. WAP to read the detail of book authors and write it to a file until the user confirms to end. The read and display the Nth record in the file, where N is read from the user. The data for authors must be represented by structures that contain name, nationality and number of books published.
6. WAP to read the following information for 96 students-: Student name, student roll no, marks obtained (in 100). Record all data in “ioe.txt” file and program should print roll number and name of student who have obtained greater than or equal to 40 marks.
7. Write a FORTRAN program to read two matrices and perform following operation and display
 - I. Addition
 - II. Subtraction
 - III. Multiplication
 - IV. Transpose of sum of two matrices i.e. $T(A+B)$
8. Write a FORTRAN program to read marks of N student and perform following operation and display
 - I. Sort in ascending order
 - II. Sort in descending order and display top three marks
 - III. Display second highest and second lowest
 - IV. Maximum and minimum
9. Write a FORTRAN program to print the Fibonacci series up to 20th term.
10. Write a FORTRAN program to convert binary into decimal number.
11. Write a FORTRAN program to display roots of quadratic equation.
12. WAP to generate following pattern
1 2 3 4 5 4 3 2 1
1 2 3 4 3 2 1
1 2 3 2 1
1 2 1
1

N
e e e
p p p p p
a a a a a a a
L L L L L L L L L

13. WAP in c to read integers from user until user say “no”. After reading the data write all the odd numbers to a filename odd.txt and all even numbers to a file named even.txt.
14. WAP that read mXn matrix and find the largest and smallest element from that matrix using function and display them.
15. WAP to copy content of one string to another string using pointer and function without using string handling function.
16. WAP to store employee details (name, address, salary) in a file name employee.txt. Read data from a file, sort them in ascending order of salary and store the sorted record to another file sorted.txt.
17. Can we pass whole array element from the function? WAP to read N element from user and pass array to function and sort them in descending order.
18. WAP to multiply two matrices having order mXn and pXq where n=p
19. WAP to read a string and rewrite its character in alphabetical order.
20. Create a structure named employee having member (name, age, address and salary). Use this structure to read the name, age and salary of 10 employee and write entered information to a file emprecord.txt and display on screen.
21. WAP to write name, roll number and age of 10 student into file srudent.txt and display all the detail of students in the ascending order of their age.
22. WAP to read structure college having name, estdate, phone number and location where estdate is another structure having date, month, year as member. Display record of 10 colleges.
23. WAP that calls reverse_array() to reverse the array and return the array and display the element of reversed array using pointer.
24. Write a FORTRAN program to sort 10 integers given from user and display the second largest integer.
25. WAP to convert lower case to uppercase and vice versa in a string entered by user using function. For example, the word “NEPAL one” must displayed as “nepal ONE”.
26. Write a FORTRAN program to add and subtract two 3*3 matrix and display the results in matrix form.
27. WAP to convert a binary no into decimal no using function & pointer.

28. WAP to perform addition, subtraction, multiplication of two complex number using structure. Make separate functions for each operation.
29. Write a menu driven program to find perimeter of rectangle, circle, square and triangle.
30. WAP to read a message and print the no. of character on it.
31. Write a program to find value of $\cos(x)$, $\sin(x)$.
32. WAP to determine whether a given number is Armstrong or not.
33. WAP to find sum of series. $1+x^2+x^3+\dots$ up to 30th term.
34. WAP with algorithm and flow chart to determine whether a number is palindrome or not using do-while loop.
35. WAP with an algorithm and flow chart to determine whether a number is even or odd using goto statement.
36. WAP with algorithm and draw flowchart to add N natural numbers using do....while loop.
37. WAP algorithm and draw flowchart to check whether a number is exactly divisible by 5 but not by 7.
38. WAP algorithm and draw flowchart to find the largest of three different numbers using nested if....else statement.
39. WAP with algorithm and draw flowchart to find all roots of quadratic equations using if-else.
40. WAP with algorithm and draw flowchart for a program that calculates sum of digits of an integer number using while loop.
41. WAP with algorithm and draw flowchart to find factorial of a positive number using for loop.
42. WAP with algorithm and draw flowchart to find HCF & LCM of two positive numbers.
43. WAP with algorithm and draw flowchart to find and print the term of Fibonacci sequence:
0, 1, 1, 2, 3, 5, 8, 13, 21, 34, ...
44. WAP with algorithm and draw flowchart to print following pattern using nested for loop.
5
5 4
5 4 3
5 4 3 2
5 4 3 2 1
45. WAP with algorithm and flow chart to determine whether a number is prime or not using if-else.
46. WAP with algorithm and flow chart to convert degree Celsius into Fahrenheit.
47. WAP to find whether the alphabet is vowel or consonant using switch statement.
48. Write a program to add three given numbers using function.
49. Write a program to calculate the tax of n given number of employees. Use a separate function to calculate the tax. Tax is 20% of basic if basic is less than 9000 otherwise tax is 25% of basic.
50. Write a program to check a number is prime or not using function.

51. WAP to calculate the HCF and LCM of two number.
52. Write a function to calculate the factorial of the number using recursive function.
53. Write a function range() which will take value of A and B as parameter and displays total numbers divisible by 3 in the range A to B.
54. Write a function which will take a year as argument and find whether that year is a leap year or not?
55. WAP to calculate the sum of Fibonacci series up to n terms using function.
56. WAP to calculate the sum of Fibonacci series using recursive function.
57. WAP to sort n numbers in ascending order using function.
58. WAP to find the largest element of an array using function.
59. WAP to sum the diagonal element of a square matrix of order n.
60. WAP that read a matrix and find sum of all the elements of matrix then print the sum.
61. WAP to convert a lowercase character string into uppercase using array.
62. WAP to read two matrices and multiply them if possible.
63. WAP to store name of week days and then print all.
64. Write a program to find out the length of a given string without using the library function strlen().
65. Write a program to print the reverse of a given string and check if a given string is palindrome or not using function.
66. Write a program to count the number of vowels in a given string using function.
67. WAP to concatenate the two-given string.
68. Create a structure named student that has name, roll, marks and remarks as members. Assume appropriate types and size of member. WAP using structure to read and display the data entered by the user.
69. Create a structure named date that has day, month and year as its members. Include this structure as a member in another structure named employee which has name, id, salary, as other members. Use this structure to read and display employee's name, id, dob and salary.
70. WAP to read records of 5 employee (Enter relevant fields: Name, address, salary, Id) Display the records of the top three employees which have the highest salary.
71. Create a user defined array structure student record having members physics, chemistry and mathematics. Feed the marks obtained by three students in each subjects and calculate the total marks of each student.
72. WAP which reads two complex numbers and then perform multiplication of these two using function with argument and return type. */ Solution: If two complex no. are a_1+ib_1 and a_2+ib_2 then multiplication is $(a_1+ib_1)*(a_2+ib_2) \Rightarrow a_1a_2 + i2b_1b_2 + a_1b_2i + a_2b_1i \Rightarrow (a_1a_2 - b_1b_2) + (a_1b_2 + a_2b_1)i$ (because $i^2 = -1$).
73. WAP to find larger of two numbers using the concept of function and pointer.
74. WAP to find out whether a given string is palindrome or not using pointer.
75. WAP to swap two numbers using pointer and function.

76. WAP to reverse the array of element using function and pointer.
77. WAP to reverse a string using pointer.
78. Program to convert upper case letter into lower and vice versa using passing pointer to a function.
79. WAP to read an array of n integers using dynamic memory allocation and display the largest and smallest element.
80. Create a file named “welcome.txt” and write some text “Welcome to Lalitpur Engineering College” to the file. Program to open the file “welcome.txt” created above, read its content & display to the screen.
81. Create a structure named employee having member: empName, age and salary. Use this structure to read the name, age and salary of 5 employee and write entered information to a file employee.txt and display on screen.
82. Create a structure named student that has name, roll and marks as members. Assume appropriate types and size of member. Use this structure to read and display records of 3 students. Write an array of structure to a file & then read its content to display to the screen.
83. Write a program to calculate sum of all number in a given matrix using pointer.
84. Write a program to read 10 numbers and sort them in ascending order using pointer.
85. Write a function using pointers to add two matrices.
86. WAP using pointer to swap the value of two variable where the swapping operation is performed in separate function?
87. WAP in c to find second largest element from an array containing N elements using concept of pointer.
88. Write a program to enter name, roll and mark of 10 students and store them in the file. Read and display the same from the file.
89. Write a program in C that allows a user enter name, age, sex, address, number of songs recorded duet singers using a file. The program should also have the provision for editing the details of any singer.
90. Write a program that read a file name employee.txt that stores employee name, id, salary and display the detail of N employee in the order of their salary.