MEERUT INSTITUTE OF ENGINEERING & TECHNOLOGY, MEERUT

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GROUP OF INSTITUTIONS

COMPUTER PROGRAMMING LAB (RCS-151/251)

Index

S.N.	NAME OF PROGRAM	DATE	SIGNATURE
1	Write a C program to find the area and circumference of a circle with radius r.		
2	Write a C Program to swap two integer variables using third variable?		
3	Write a C Program to swap two integer variables without using third variable?		
4	WAP that accepts the marks of 5 subjects and finds the sum and percentage marks obtained by the student.		
5	Write a C program in which values of variables x, y, z are entered by user, and then their values are rotated such that x has value of y, y has value of z, and z has value of x.		
6	Write a C program to convert the temperature from Fahrenheit to Celsius.		
7	Area of a triangle is given by the formula: $A = \sqrt{S(S-a)(S-b)(S-c)}$ Where a, b and c are sides of the triangle and S = (a+b+c)/2. Write a C program to compute the area of the triangle.		
8	Write a C program to compute simple and compound interest. The Principal Amount, Rate of Interest and Time are entered through the keyboard.		
9	Write a C program to obtain sum of digits of a four digit number without using loop.		
10	Write a C program to obtain reverse of a four digit number without using loop.		
11	Write a C program to multiply a given integer number with 2^n without using multiplication operator.		
12	Write a C program that checks whether the two numbers entered by the user are equal or not.		
13	Write a C program to check whether the entered number is even or odd.		
14	Write a C program to check whether the entered number is even or odd without using modulus operator.		
15	Write a C program to check whether an entered character is vowel or not.		
16	Any character is entered through the keyboard; write a program to determine whether the entered character is a capital letter, a small case letter, a digit or a special symbol.		
17	Write a C program that accepts marks of five subjects and finds percentage and prints grades according to the following criteria: Between 90-100%----------Print 'A' 80-90%----------Print 'B' 60-80%----------Print 'C' Below 60%----------Print 'D'		

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18	Write a program to print the quadrant for a given coordinate (x,y).		
19	Write a C program to find the roots of a quadratic equation.		
20	Write a C program to find the largest of the three numbers.		
21	Any year is input through the keyboard. Write a C program to determine whether the year is a leap year or not.		
22	Write a C program to find largest of two numbers using conditional operator.		
23	Write a C program to find largest of three numbers using conditional operator.		
24	Write a C program to simulate a simple calculator to perform arithmetic operations like addition, subtraction, multiplication and division.		
25	Write a C program to check whether an entered character is vowel or not vowel using switch statement.		
26	Write a C program to find out sum of first N natural numbers.		
27	Write a C program print sum of even and odd numbers from 1 to N numbers.		
28	Write a C program to find the factorial value of any number entered through the keyboard.		
29	Write a C program to check whether a given number is prime or not.		
30	Write a C program to generate and print first N Fibonacci numbers.		
31	Write a C program to find out sum of first N Fibonacci numbers.		
32	Write a program to add first n terms of the following series: $F(x) = x1 - x3 + x5 - x7 + \ldots\ldots\ldots\ldots$ The values of n and x are entered through the keyboard.		
33	Write a C program to find sum of digits of an integer number		
34	Write a C program to reverse an integer number.		
35	Write a program to check whether a given number is Armstrong or not?		
36	Write a C program to print Armstrong numbers from 1 to 1000.		
37	Write a C program to find out sum of first n nonnegative numbers from a list of numbers.		
38	Write a program to generate the following pattern up to n numbers of rows: 1 2 2 3 3 3 4 4 4 4		
39	Write a program to generate the following pattern up to n numbers of rows: 1 1 2 1 2 3 1 2 3 4		
40	Write a C program to compute and display the sum of all integers that are divisible by 6 but not divisible by 4 and lie between 0 and 100. The program should also count and display the number of such values.		

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41	Write a program that accepts the length and width of a rectangle and print the area. The area of rectangle is calculated by a function and returns its value to main program where it is printed.		
42	Draw a flow chart and write a function to calculate factorial of given number and also write a program to calculate the sum of the following series using the above function: S = 1! + 2! + 3! + ... +N!		
43	Write a C function to swap the values of two variables making use of pointers. (call by reference)		
44	Write a recursive function to find out the factorial of a given integer.		
45	Write a recursive function to find the sum of first n integers, where n is the argument to the function.		
46	A 5-digit positive integer is entered through the keyboard, write a function to calculate sum of digits of the 5-digit number: I. Without using recursion II. Using recursion		
47	Write a C program that simply takes elements of the array from the user and finds the sum of these elements.		
48	Write a C program that inputs two arrays and saves sum of corresponding elements of these arrays in a third array and prints them.		
49	Write a C program to find the minimum and maximum element of the array.		
50	Write a program to copy the contents of one array into another in the reverse order.		
51	Write a program to convert a decimal number into binary number using array.		
52	Write a program to convert a decimal number into Hexadecimal number using array.		
53	Write a C program to search an element in a array using Linear Search.		
54	Write a C program to sort the elements of the array in ascending order using Bubble Sort technique.		
55	Write a C program that finds the sum of diagonal elements of an mxm matrix.		
56	Write C a program to obtain transpose of a 4X4 matrix.		
57	Write a program to add two n x n matrices.		
58	Write a C program to multiply two n x n matrices.		
59	Write a C program to read a string and check whether it is palindrome or not.		
60	Write a C program that accepts a string through the keyboard and interchange all lower case letters by upper case letters. Also prints the output string.		
61	Write a C program to reverse a string using user defined function.		
62	Write a C program to sort a string in alphabetical order.		
63	Write a C program to implement strlen (), strcat (),strcpy () using the concept of Functions.		
64	Write a program that compares two given dates. To store date use structure say date that contains three members namely date, month and year. If the dates are equal then display message as "Equal" otherwise "Unequal".		

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65	Create a structure to specify data on students given below: Roll number, Name, Department, Course, Year of joining Write a C program to print roll no. and name of students who joined in a particular year.		
66	Define a structure data type TRAIN_INFO. The type contain Train No.: integer type, Train name: string, Departure Time: aggregate type TIME, Arrival Time : aggregate type TIME, Start station: string, End station : string. The structure type Time contains two integer members: hour and minute. Maintain a train timetable and implement the following operations: I. List all the trains (sorted according to train number) that depart from a particular section. II. List all the trains that depart from a particular station at a particular time. III. List all he trains that depart from a particular station within the next one hour of a given time. IV. List all the trains between a pair of start station and end station.		
67	Write a C program to copy the contents of a file to another file.		
68	Write a program that takes 50 integers from a file and write even numbers into a file (say even.txt) and odd numbers into a different file (say odd.txt).		
69	Write a C program to count the no. of characters, no. of words, and no. of lines in a particular file.		
70	Write a C program to compare the contents of two files and determine whether they are same or not.		
71	Write a C program to check whether a given word exists in a file or not. If yes then find the number of times it occurs.		