<h1 style="text-align:center">PROGRAMMING FOR PROBLEM SOLVING LAB (CS 291)</h1>

Write a program in 'C' language for the following problems:

1. Compute (A+B×C), where *A*, *B* are integers and *C* is a floating point value. *A*, *B*, *C* should be given by users.
2. Enter radius of a circle and find the area & circumference.
3. Enter a temperature in Centigrade and change to Fahrenheit.
4. WAP to calculate the total amount of money in the piggybank, given coins of Rs. 10, Rs. 5 and Rs. 1.
5. WAP in 'C' to print ASCII value of a character.
6. WAP in 'C' to read character in uppercase and then to print it into its lowercase.
7. WAP in 'C' to swap two variables using 3rd variable.
8. WAP in 'C' to swap two variables without using 3rd variable.
9. WAP in 'C' to find the largest of three numbers.
10. WAP in 'C' to find out whether a given number is odd or even.
11. WAP in 'C' to find summation of 1st '*n*' terms(using 'for','while' and 'do-while')
12. WAP in 'C' to calculate the sum of numbers from '*m*' to '*n*'.
13. WAP in 'C' to reverse a given number (using 'while').
14. WAP in 'C' to find Addition of the digits of a given number (using 'while').
15. WAP in 'C' to find Factorial of a given number (iteratively).
16. WAP in 'C' to find out Fibonacci series up to '*n*' terms.
17. Enter a number and check whether it is Armstrong number or not (using while).
18. Enter a number and check whether it is Palindrome or not (using while).
19. Enter a number and check whether it is Krishnamurthy number or not (using while).
20. WAP in 'C' to check whether a number is prime or not.
21. WAP in 'C' to find out the following output:

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i)   *         ii) ****              iii)     *        iv) ****      v)          *
     **            ***                        **           ***                 ***
     ***           **                         ***          **                 *****
     ****          *                          ****         *                  *******


vi)    *     vii)  1        viii)   1          ix)      1     x)           1
      * *          2 2              2 3 2               1 1               2 3
      * * *        3  3 3           3 4 5 4 3           1 2 1             4 5 6
                                    4 5 6 7 6 5 4       1 3  3 1         7 8 9 10
                                                       1 4  6 4 1
                                            (Pascal's Triangle)      (Floyd's Triangle)
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22. WAP in 'C' to find GCD of two numbers (iteratively).
23. WAP in 'C' to change a decimal number to its equivalent binary number.
24. WAP in 'C' to change a binary number to its equivalent decimal number.

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25. WAP in 'C' to find the sum of the following series, where 'N has definite value:
    i)   S= 1+3+5+……N
    ii)   S= 1+2/2! + 3/3! + 4/4!+……………N
    iii)   S= 1+ (1+2)+ (1+2+3)+…………….N
26. WAP in 'C' to find the Sum, Difference, Multiplication & Quotient of two given numbers, using switch case (Menu driven program).
27. a) WAP in 'C' to enter a number from 1 to 7 and display the corresponding day of week using switch case statement.
    b) Modify it for a month of your choice.
28. WAP in 'C' using functions, to find whether a number is odd or even.
29. WAP in 'C' using functions, to convert time to minutes.
30. WAP in 'C' to compute x^k using function, where x is a valid number and k is integer.
31. WAP in 'C' to use a function to check whether a given number is a leap year or not.
32. WAP in 'C' to swap two numbers using *'Call by Value'* and *'Call by Reference'*.
33. WAP in 'C' to find Factorial of a given number (recursively).
34. WAP in 'C' to find out Fibonacci series up to '*n*' terms (recursively).
35. WAP in 'C' to find GCD of two numbers (recursively).
36. WAP in 'C' to find sum of '*n*' numbers (recursively).
37. WAP in 'C' to find sum of two matrices.
38. WAP in 'C' to find multiplication of two matrices.
39. WAP in 'C' to find the transpose of two matrices.
40. WAP in 'C' to find the sum of each row of a 2-d array.
41. WAP in 'C' to find the sum of each column of a 2-d array.
42. WAP in 'C' to find the sum of each diagonal of a 2-d array.
43. WAP in 'C' to sort the '*n*' numbers by descending order.
44. WAP in 'C' to find roots of a quadratic equation.
45. WAP in 'C' to check whether the given string is palindrome or not.
46. WAP in 'C' to count number of vowels in a given string.
47. WAP in 'C' to copy one string to another without using *strcpy()*.
48. WAP in 'C' to convert a string from uppercase to lowercase without using *strlwr()*.
49. WAP in 'C' to find largest of *n* numbers using arrays and also display its position with the help of pointers.
50. WAP in 'C' to take inputs of a matrix using "Array of Pointers".
51. WAP in 'C' to read and display matrix whose size is taken during runtime.
52. WAP in 'C' using structures to read and display the information about a student. Roll numbers, names, fees, and DOB should be some of the relevant information of a student.
53. WAP in 'C' to enter two points and then calculate the distance between them using structure.

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