# Module I

1. WAP to evaluate the expression $b^2 - 4ac$.
2. Pgm to calculate Area & perimeter of a rectangle.
3. Pgm to print the size of various data types in C.
4. Pgm to print the sum & average of 3 values.
5. The Pgm to find largest & smallest of 3 Numbers.
6. Write a program to read 2 integer values m & n and to decide & print whether m is a multiple of n.
7. The cost of one type of mobile service is Rs. 250 + 1.25 for each call made over & above 100 calls. Wt Pgm to read customer codes and calls made & print the bill.
5. Wt Pgm to compute the values of square roots and squares of the no.s 0 to 100.
6. Pgm to determine a given integer is odd or even.
7. Pgm to read a no. & print the sum of its digits.
8. Pgm evaluates the square root for 5 no.s. The variable count keeps the count of the no.s read. When count is less than or equal to 5, goto read; directs the ctl to the label read; otherwise the pgm prints a msg & stops.
9. Pgm to find the no. of & sum of all integers greater than 100 and less than 200 that are divisible by 7.
10. Pgm to compute & print grade card of student.
11. Pgm to compute & display sum of all integers that are divisible by 6 but not divisible by 4 & lie b/w 0 & 100. The pgm should also count & display the no. of such values.

12. Pgm to ~~count~~ compute x to the power n using while loop.

13. A class of n students take an annual examination in m subjects. A program to read the marks obtained by each student in various subjects & to compute and print the total marks obtained by each of them.

14. Pgm to reverse the digits of a number.

15. Pgm to compute & print factorial of a number.

16. Pgm to generate fibanocii series
$$1\ 1\ 2\ 3\ 5\ 8\ 13\ 21\ \dots$$

17. Pgm to calculate $nC_r$.

18. Pgm read the age of 100 persons & count the no. of persons in the age group 50 to 60.

19. WAP to calculate $1 + \frac{1}{1!} + \frac{1}{2!} + \frac{1}{3!} \dots + \frac{1}{n!}$

20. Pgm to calculate
$$Total = \sum_{i=1}^{10} x_i^2$$
The values $x_1, x_2 \dots$ are read from the terminal.

21. Pgm to add 2 matrices.

22. Pgm to find transpose of matrix

23. Pgm to find diagonal elmts of a matrix.

24. Pgm to find sum of diagonal elements.

25. Pgm to print upper triangular matrix.

26. Pgm to print even numbers in a matrix.

27. Pgm to print sum of diagonal elemts is Armstrong or not

28. Pgm to find median of unsorted array elemts.

1. Pgm that will compute length of a given character string.

30. Pgm that will count the no. of occurrences of a specified character in a given string.

31. Pgm to count the vowels & consonants in a string.

32. Pgm to calculate sum & differences of 2d matrices.

33. Pgm to check the given no. is prime or not.

34. Pgm to check the given no is palindrome or not.

35. Pgm to print prime no's b/w given range.

36. Pgm to check the given no is perfect or not.

37. Pgm to print given perfect numbers b/w given range.

28. Pgm to check given string is palindrome or not.

29. Pgm to sort 'n' numbers in an array.

30. Pgm to insert an element into the sorted array.

31. Pgm to Insert an element into specified position.

32. Pgm to search an element in an array.

33. Pgm to delete an element from an array.

34. The names of employees of an organization are stored in 3 arrays, namely fname, sname & Lname. WAP to concatenate the 3 parts into one string to be called name.

35. $S_1$, $S_2$ & $S_3$ are 3 string variables. Write a pgm to read 2 string constants into $S_1$ & $S_2$ and compare whether they are equal or not. If they are not, join them together. Then copy the contents of $S_1$ to the variables $S_3$. The program should print the contents & length of 3 variables.

Pgm to sort a list of names in an alphabetical order.

37. WAP that will copy m consecutive characters from a string $s_1$ begining at position n into another string $s_2$.

38. Pgm to find factorial of a number using recursion.

39. Pgm to find largest & smallest of n numbers using function.

40. Pgm to sort an array of integers using function.

41. Pgm to swap values of 2 variables using functions.

42. Write a function prime that returns 1 if its argument is a prime number & returns zero otherwise.

43. Write a pgm to perform calculator functions using function.

44. Write a function that can be called to find largest of an mxn matrix.

45. Pgm to find avg of each row. using functions.

46. Write a pgm to compute sum of all elements in an array using pointers.

47. Write a pgm to determine the length of a character string.

48. Write a function that recieves sorted array of integers & an integer value & inserts the value in its correct place.

49. Using Pgm to delete the given character from the string & display the resulting string without any space using function & pointers.

50. Pgm to reverse the elements of array using pointers.