# PROGRAMS ON NUMBER

1. Write a program to Print 1 to N numbers
2. Write a program to Print REVERSE of N to 1 numbers?
3. Write a program to display sum of 1 to N numbers?
4. Write a program to check given number is EVEN or ODD?
5. Write a program to display PRIME NUMBERS from 1 to n?
6. Write a program to check whether the given number is PRIME or not?
7. Write a program to find SUM OF PRIME numbers?
8. Write a program to display MULTIPLICATION table?
9. Write a program to display MULTIPLICATION TABLES?
10. Write program weather the number is PERFECT NUMBER or not? Def: **Perfect number,** a positive integer that is equal to the sum of its proper divisors. The smallest perfect number is 6, which is the sum of 1, 2, and 3.
11. Write a program to display RANGE of PERFECT NUMBERS?
12. Write a program to check the given number is PALINDROME or not?
13. Write a program to find the FACTORIAL of a given number?
14. Write a program to find the FACTORIAL of a given RANGE of numbers?
15. Write program to check the given number is STRONG or not? Def: Strong numbers are the numbers whose sum of factorial of digits is equal to the original number. Example: 145 is a **strong number**.
16. Write program weather to find range of STRONG NUMBER?
17. Write a program to display FIBONACCI series of a number?
18. Write a program to display range of FIBONACCI numbers?
19. Write a program to REVERSE the number?
20. Write a program to display GCD of two numbers?
21. Write a program to check the given number is PRIME PALINDROME or not?
22. Write a Program to check the given number is ARMSTRONG or not? Def: An Armstrong number is an integer such that the sum of the power of its digits is equal to the number itself.

    For example, 371 is an Armstrong number since $3**3 + 7**3 + 1**3 = 371$.
    9 is an Armstrong number since $9*1 = 9$.

23. Write a Program to display the range of ARMSTRONG numbers?
24. Write a program to Swap two numbers without using $3^{rd}$ variable?
25. Write a program to Swap two numbers with using $3^{rd}$ variable?

# NUMBER CONVERSIONS

1. Write a program to convert BINARY to DECIMAL?

2. Write a program to convert DECIMAL to BINARY?

3. Write a program to convert OCTAL to DECIMAL?

4. Write a program to convert DECIMAL to OCTAL?

5. Write a program to convert DECIMAL to HEXADECIMAL?

6. Write a program to convert DECIMAL to ALL(Octal , Hexa and Binary)?

7. Write a program to convert DECIMAL to HEXADECIMAL?

# PROGRAMS on STAR PATTERNS

1. Write a program to display EQUILATERAL TRIANGLE with stars?

2. Write a program to Display INVERTED TRIANGLE with stars?

**3.** Write a program to display the FILLED BOX with stars?

4. Write a program to display the HALLOW BOX with stars?

5. Write a program to display the BOX and CROSS inside it with stars?

6. Write a program to display CROSS mark with stars?

7. Write a program to display RIGHT ANGLE triangle with stars?

8. Write a program to display Reverse Triangle with stars?

9. Write a program to display MIRROR of RIGHT ANGLE triangle with stars?

10. Write a program to display DOWNWARD MIRROR of RIGHT ANGLE triangle with stars?

11. Write a program to display DIAMOND with stars?

12. Write a program to display HALLOWDIAMOND with stars?

13. Write a program to display NUMBERS in DIAMOND shape?

14. Write a program to display CHARACTERS in DIAMOND shape?

15. Write a program to display M pattern with stars?

16. Write a program to display sequence of numbers in TRIANGLE format?

# PROGRAMS ON STRINGS

1. Write a program to find weather a string is ANAGRAM or not? Def: a word, phrase, or name formed by rearranging the letters of another, such as *silent* formed from *listen*.

2. Write program weather the string is PANAGRAM or not? **Def:** a sentence containing every letter of the alphabet.

3. Write a program check the given string is PALINDROME or not?

4. Write a program to display REVERSE of a STRING?

5. Write a program to COUNT number of CHARACTERS in a String?

6. Write a program to find the sum of numbers in an ALPHA NUMERIC STRING?

7. Write a Program for number of characters in each WORD and count them?

8. Write a Program to display OCCURENCES of each character in a STRING?

9. Write a program to display number of LOWERCASE, UPPERCASE, SPECIAL SYMBOLS, SPACES and DIGITS in a STRING?

10. Write a program to convert NUMBER into WORDS?

11. Write a program to REVERSE the SENTENCE?

12. Write a program to REVERSE THE WORDS in a SENTENCE?

13. Write a program to display STRING INITCAP of Words?

14. Write a program to convert UPPER CASE TO LOWER CASE & VICE VERSA?

15. Write a program to find a SUB-STRING without using INBUILT functions?

16. Write a program to convert Integer of String type to INTEGER type without using parse int?

# SEARCHING & SORTING PROGRAMS

1. Write a program for LINEAR SEARCH?

2. Write a program for BINARY SEARCH?

3. Write a program for BUBBLE SORT?

# PROGRAMS on ARRAYS

1. Write a program to INSERT the ELEMENTS in an Array?

2. Write a Program to REVERSE THE ELEMENTS of an array?

3. Write a program to INSERT A ELEMENT INTO EXISTING ARRAY in a specified position?

4. Write a program to DELETE AN ELEMENT OF A SPECIFIED INDEX IN THE EXISTING ARRAY?

5. Write a program to SEARCH AN ELEMENT IN THE EXISTING ARRAY?

6. Write a program to find BIGGEST AND SMALLEST ELEMENT in the given array?

7. Write a program to find FIRST BIGGEST AND SECOND BIGGEST ELEMENT in given array?

8. Write a program to FIND THE SECOND OCCURRENCE ELEMENT in a given array?

9. Write a program to FIND THE OCCURRENCE ELEMENT IN which position in a given array?

10. Write a program to FIND HOW MANY TIMES ELEMENT IS OCCURED in a given array?

11. Write a program to DISPLAY MISSING ELEMENT in a given sorted array?

12. Write a program to FIND HIGHEST CONTIGUOUS SUM OF TWO ELEMENT **in a given array?**

13. Write a program to DISPLAY THE COMMON ELEMENTS between two arrays?

14. Write a program to EXCHANGE OF FIRST PART ELEMENT TO SECOND PART Element between two arrays?

15. Write program TO DISPLAY DISTINCT ELEMENTS from given two array?

16. Write a program to MERGE TWO ARRAYS?

17. Write a program to COMBINE TWO ARRAYS IN ZIGZAG manner?

18. Write a program to find the PALINDROME numbers in the given ARRAY?

19. Write a program to read elements into the MATRIX from SCANNER?

20. Write a program to read inputs from SCANNER and find the BIGGEST ELEMENT in EACH ROW and EACH COLUMN?

21. Write a program to read inputs from SCANNER and find the SUM of ELEMENTS in EACH ROW and EACH COLUMN?

# SPECIAL PROGRAMS

1. Write a program to find the given YEAR is LEAP-YEAR or not?

2. Write a program to find days between DATE to DATE?