For Loop & While Loop (Questions)

1. Write a program to print all natural numbers from 1 to n. – using while loop
2. Write a program to print all natural numbers in reverse (from n to 1). – using while loop
3. Write a program to print all alphabets from a to z. – using while loop
4. Write a program to print all even numbers between 1 to 100. – using while loop
5. Write a program to find the sum of all odd numbers between 1 to n.
6. Write a program to count the number of digits in a number.
7. Write a program to calculate the sum of digits of a number.
8. Write a program to find the first and last digit of a number.
9. Write a program to find the sum of first and last digit of a number.
10. Write a program to enter a number and print its reverse.
11. Write a program to find the power of a number using for loop.
12. Write a program to find all factors of a number.
13. Write a program to calculate the factorial of a number.
14. Write a program to find LCM of two numbers.
15. Write a program to check whether a number is Prime number or not.
16. Write a program to print all Prime numbers between 1 to n.
17. Write a program to find all prime factors of a number.
18. Write a program to check whether a number is an Armstrong number or not.
    a. An Armstrong number is a n-digit number that is equal to the sum of the nth power of its digits. For example –
    6 = 61 = 6
    371 = 33 + 73 + 13 = 371
19. Write a program to check whether a number is Strong number or not
    a. Strong number is a special number whose sum of factorial digits is equal to the original number.
    For example: 145 is a strong number. Since, 1! + 4! + 5! = 145

20. Write a program to check whether a number is perfect number or not

a. Perfect number is a positive integer which is equal to the sum of its proper positive divisors.
For example: 6 is the first perfect number
Proper divisors of 6 are 1, 2, 3
Sum of its proper divisors = 1 + 2 + 3 = 6.
Hence 6 is a perfect number.

21. Write a program to print fibonacci series upto n terms
   a. Fibonacci series is a series of numbers where the current number is the sum of the previous two terms. For Example: 0, 1, 1, 2, 3, 5, 8, 13, 21, … , (n-1th + n-2th)
22. Write a program to find ones complement of a binary number
   a. One's complement of a binary number is defined as value obtained by inverting all binary bits. It is the result of swapping all 1s to 0s and all 0s to 1s.

   | 0 1 1 0 1 1 1 0 ← | Original binary value |
   | 1 0 0 1 0 0 0 1 ← | 1's complement |

   b.