**1. CONDITIONALS AND ITERATIONS**

1. Write a program to input an integer number. Decrement the number if it is Negative.
2. Write a program to input an integer number to determine whether the given number is divisible by 11.
3. Write a program to check whether the input number is odd or even.
4. Write a program to check whether the input number is Leap year or not.
5. Write a program to find the greatest number from three numbers.
6. Write a program that prompts the user to enter a number between 1 -12 and then displays the corresponding day of the week.
7. Write a program to determine whether the character entered is a vowel or consonant.
8. Write a program to calculate roots of a quadratic equation.
9. Write a program that determines whether an alphabet, digit or a whitespace was entered.
10. Write a program that prompts users to enter a character (O, A, B, C, F). Then using if-else if-else construct display Outstanding, Very Good, Good, Average and Fail respectively.
11. A video library rents new videos for Rs 75 / day and old movies for Rs 50 a day. Write a program to calculate the total charge for a customer’s video rentals. The program should prompt the user for the number of each type of video and output the total cost.
12. Write a program to prints the prime factors of a given number.
13. Write a program to prints numbers from 50 to 70.
14. Write a program to prints numbers from 75 to 15(counts downwards) with intervals of 5.
15. Write a program that finds average of first n numbers using for loop.
16. Write a program to prints the sum of all odd numbers from 1 to 100.
17. Write a program to prints a number, its square and cube repeatedly in range (1, n).
18. Write a program to print whether the input number is Armstrong or not.
19. Write a program to print whether the input number is Palindrome or not.
20. Write a program that accepts any number and prints the number of digits in that number.
21. Write a program that reads integers until the user wants to stop. When the user stops entering numbers, display the largest of all the numbers entered.
22. Write a program to sum the series: 12 / 1 + 22 / 2 + 32 / 3 + … + n2 / n.
23. Write a program to sum the series: - X + X2 – X3 + X4 +…
24. Write a program to sum the series: 1 + (1 + 2) + (1+2+3) + …
25. Write a program to sum the series: 1 – X + X2 / 2! – X3 / 3! +…
26. Write a program to display the sin(x), cos(x) and tan(x) value where x ranges from 0 to 360 in steps of 15.