Department of Computer Science and Engineering
Jaypee University of Engineering and Technology
18B11CI111 – Software Development Fundamentals

LAB-4 Algorithms and Flow Charts

1) Write an algorithm and draw a flowchart to find the sum of first 50 natural numbers.
2) Write an algorithm and draw a flowchart to find the largest of three numbers A, B, and C.
3) Write an algorithm and draw a flowchart for computing factorial N (N!)
4) Write an algorithm and draw a flowchart to find the average of three given numbers.
5) Write an algorithm and draw a flowchart for calculating the pay of employee according to number of hours; he/she works for company. [Hint. Consider rate of hour is also given]
6) Write an algorithm and draw a flowchart for calculating the average of 10 numbers {0 to 9} using repetition construct.
7) Write an algorithm to find out that given number is odd or even.
8) Write an algorithm to find that given number is perfect number or not.
9) Write an algorithm to find that given number is palindrome or not.
10) Write an algorithm to find the factorial of any given number.
11) Write an algorithm to find that given number is Armstrong number or not.
12) Write an algorithm for computing the sum of digits in a number.
13) Write an algorithm to read a number N and print all its divisors.

Perfect number is a positive number which sum of all positive divisors excluding that number is equal to that number. For example 6 is perfect number since divisor of 6 are 1, 2 and 3. Sum of its divisor is 1 + 2+ 3 =6 Note: 6 is the smallest perfect number.

Those numbers which sum of the cube of its digits is equal to that number are known as Armstrong numbers. For example 153 since 1^3 + 5^3 + 3^3 = 1+ 125 + 9 =15