CS6102 – COMPUTATIONAL THINKING LABORATORY

Week 1 (17.11.2022)

Algorithmic thinking

Write down algorithms for the following:

Level 1:

1. A recipe for a dish.
2. Quickest route to a supermarket.
3. How to buy things from / navigate a grocery store in minimum amount of time.
4. Getting ready to college
5. Making coffee
6. Calling a friend on your mobile phone
7. Growing a plant by planting a seed
8. Getting a nativity certificate from the Tahsildar office
9. Opening an account in the bank
10. Meeting a doctor if sick

Level 2:

11. Get a number between 1 and 12 and print the corresponding month. (1 – January)
12. Given three numbers a, b, and c, find the smallest number.
13. Given 5 numbers, find whether each number is positive, negative or zero.
14. Given 5 numbers, check if each number is even or odd.
15. Display the square of the first 50 integers.
16. Generate the first 20 numbers in the series 1, 5, 9, 13, 17, …
17. Given the number of a month, give the number of days in the month.
18. Generate the first 100 odd numbers (1, 3, 5, 7, 9, ….)
19. Generate the first 100 even numbers (0, 2, 4, 6, 8, ….)
20. Generate the Fibonacci sequence (1, 1, 2, 3, 5, 8, ……)