**Assignment # 2**

**Programming Fundamentals CS118**

**Due Date: 3/October/2020 11:59 pm**

**Total Marks: 100 Total weightage: 2**

**Instructions**

* **AVOID plagiarism must be not more than 25%. Even 26% is not tolerable.**
* If you cannot on turnitin at the time, you can opt for google classroom
* Late submissions won’t be considered at all you would awarded straight 0.
* If you have any query you must contact me on email or you can ask question in the class.
* **Make diagrams in MS word or any other software but make sure diagrams are not made on paper or figures must not be in screenshot form.**

1) What is an algorithm?

2) Explain need of an algorithm?

3) Write an algorithm to find average age of a group of 10 players?

4) Write algorithm to this problem:

1. Explain steps involve in drawing of a flowchart.
2. Explain uses of Flowchart.

Ramshewak goes to market for buying some fruits and vegetables. He is having a currency of Rs 500 with him for marketing. From a shop he purchases 2.0 kg Apple priced Rs. 50.0 per kg, 1.5 kg Mango priced Rs.35.0 per kg, 2.5 kg Potato priced Rs.10.0 per kg, and 1.0 kg Tomato priced Rs.15 per kg. He gives the currency of Rs. 500 to the shopkeeper. Find out the amount shopkeeper will return to Ramshewak. And also tell the total item purchased.

5) Draw the PAC, HIPO, IPO, and flowchart and write the pseudo code for the following problems

* Find factorial of N?
* Find the sum of first 100 natural numbers.
* Find the largest of three numbers x, y and z.
* Determining prime number?
* A program which generates first 50 items of the Fibonacci series: 1, 1, 2, 3, 5, 8,
* Find factorial of N?

6. Draw Flowchart of 5 problems of your own choice. But people should come up with unique problems.