1158-11-315 **Santanu Chakraborty*** (santanu.chakraborty@utrgv.edu), School of Math and Stat Sc., UTRGV, 1201 West University Drive, Edinburg, TX 78539. *Some Interesting Observations with respect to Collatz Conjecture.* Preliminary report.

Collatz Conjecture concerns the following problem of generating a sequence. Start with a positive integer. If it is even, divide it by 2. If it is odd, multiply it by 3 and then add 1. Each subsequent term is obtained from the previous term by following the same philosophy. The conjecture is that, whatever be the first term in the sequence, it always leads to 1 which means this process generates a terminating sequence with the last term in the sequence being 1.

This conjecture is more than 80 years old. There have been several unsuccessful/partially successful attempts to prove this conjecture. While we do not claim to prove this conjecture, we make some interesting observations with respect to this conjecture from Markov Chain point of view and from binary number representation point of view. (Received March 03, 2020)