**Course Code: CSC 203.**

**Course Name: Fundamentals of Automata Theory. Test: Assignment 3**

**Weight: 15 Marks**

**Due Date: 19th March 2021**

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1. Convert the following CFG into Chomsky Normal Form: S aXbX
   1. aY | bY |
   2. X | c

(Note: Explain all steps followed) [5 Marks]

1. Given the production rules, G:

E => E+E | E\*E | (E) | F

F => aF | bF | 0F | 1F | 

1. Use the Left-most derivation style to derive the string a\*(ab+10) from G.

[5 Marks]

1. Generate a Parse Tree for a\*(ab+1)+10 from G. [5 Marks]