CSE331: Automata and Computability
Total Marks: 20
Allocated Time: 30 minutes
Section: 02
Faculty: Farhan Feroz
Semester: Fall 2022

Obtained Marks

Name: **ID:**

"Best of Luck"

Question 1: [15 Points]

Construct a Context-Free Grammar for the languages expressed by the following regular expression:
[Here, + means OR operation]

$$((ab)^* + (a + b^3)cb)^*$$

Question 2: [15 Points]

Draw a Pushdown Automata for the following Language:

$$L = \{w \in \Sigma^* : w = 0^n 1^m 0^k \text{ where } n = k \text{ or } m \text{ is even}\}$$