

BRAC University
Dept. of Computer Science and Engineering
Fall 2024
CSE331-11
QUIZ - 1(A)

Time: 25 minutes

Marks: 20

Name:

ID:

Section:

1. Construct DFAs that recognize the following languages.
 - a. $L = \{ w \in \{a,b\}^* : w \text{ ends with } n \text{ number of } a\text{'s, where } n \text{ is a multiple of three} \}$
4
 - b. $L = \{ w \in \{0,1\}^* : \text{the count of 0 in } w \text{ is one less than the multiple of 4} \}$ 6
2. Give regular expressions for the following languages.
 - a. $L = \{ w \in \{0,1\}^* : w \text{ contains exactly two '01's as a substring} \}$ 4
 - b. $L = \{ w \in \{a,b\}^* : w \text{ starts with "bab"} \}$ 6