**BRAC University**

**Dept. of Computer Science and Engineering**

**Summer 2024**

**CSE331-05**

**QUIZ - 2(B)**

**Time: 25 minutes Marks: 20**

Name: ID: Section:

1. Give regular expressions for the following languages.
   1. L = { w ∈ {0,1}\* : w contains “1010” as a substring} 6
   2. L = { w ∈ {0,1}\* : the count of 1 in w is even’} 5
   3. L = { w ∈ {a,b}\* : the count of substring ‘ba’ in w is multiple of two} 4
2. Convert the following regular expression over Σ = {0, 1} into an equivalent NFA. Note that R1 + R2 is the same as R1 ∪ R2. 5

01(0+010\*)\*1 + 1 + (1+0)1