Homework 4:

Q1: Give the regular expressions that accept the following languages

1. Strings with **no consecutive** ones.
2. Strings that **starts and ends** with "00".
3. Strings that have **at most** one "1".
4. Strings of **length** 5.

Q2: Give five different examples from each Regular Expression and explain in words what does everyone do?
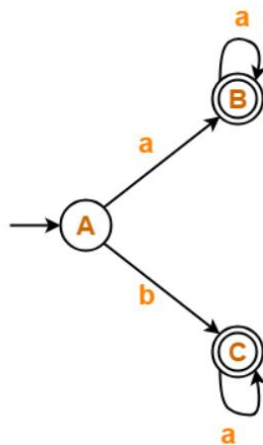
1. (1+0)* (1+0) (1+0) (1+0)
2. 11 (1+0) 11
3. (000)*
4. $(0+1)^7$ 1 (1+0)(1+0)
5. (10+0)*(ε+1+11)(01+0)*
6. (11 + 00)* + ε

Q3: Use state elimination method to convert the following DFA to RE and explain your answer.

1-
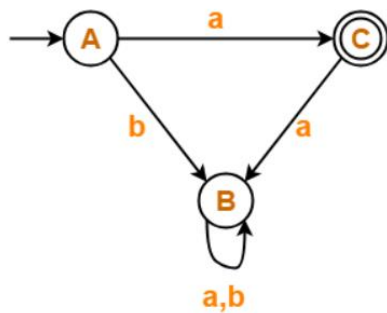
2-

Q4: Convert the following Regular Expressions to ε-NFA

1- (1+0) (00 + 11)* (1+0)
2- (ε + 0) 10 + (11)*