National University of Computer & Emerging Sciences, Karachi Department of Computer Science Task # 4





Find the NFA for the following set of languages:

- **L7** = having exactly one pair of consecutive zeros.
- **L8** = having exactly one a.
- **L9** = strings containing no more than 3 a's
- **L10** = all strings that contain at least one occurrence of each symbol in alphabet
- **L11** = all strings ending in 0, 1.
- **L12** = all string not ending in 0, 1
- **L13** = All strings containing even number of zeros.
- **L14** = all string having at least two occurrences of substring 00.
- **L15** = all strings not containing 101.
- **L18** = The language of all strings containing exactly two a's.
- **L19** = The language of all strings containing at least two a's.
- **L20** = The language of all strings that do not end with ab.
- **L21** = The language of all strings that begin or end with aa or bb.
- **L22** = The language of all strings not containing the substring aa.
- **L23** = The language of all strings in which the number of a's is even.
- **L24** = The language of all strings in which both the number of a's and the number of b's are even.

- **L25** = The language of all strings containing no more than one occurrence of the string aa. (The aaa string contains two occurrences of aa.)
- **L26** = The language of all strings in which every a (if there are any) is a followed immediately by bb.
- **L27** = The language of all strings containing both bb and aa as substrings.
- **L28** = The language of all strings containing both aba and bab as substring.

Good Luck