**Name:** Wajahat Raza Zakir

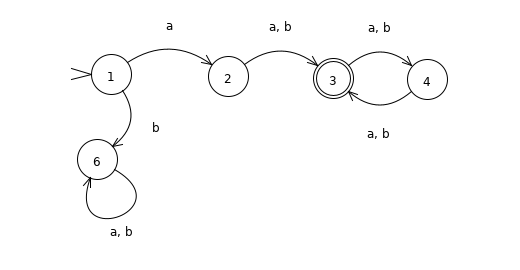
**Roll No:** 17P-6011

**Course:** Theory of Automata

**Instructor:** Sir Shakirullah Shah

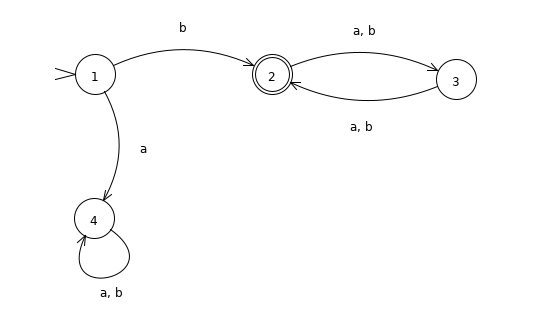
**1) Starts with a and has even number of letters.**

a(a+b)((a+b)(a+b))\*



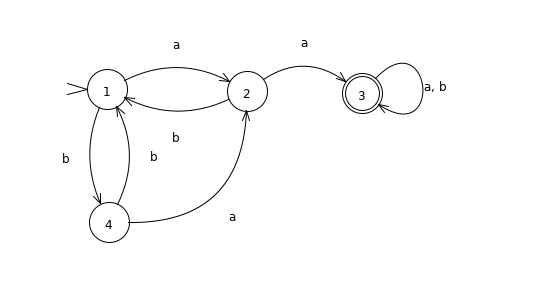
**2) Starts with b and has odd number of letters.**

b((a+b)(a+b))\*



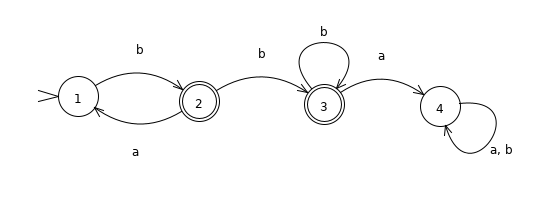
**3) Contains aa.**

(a+b)\*aa(a+b)\*



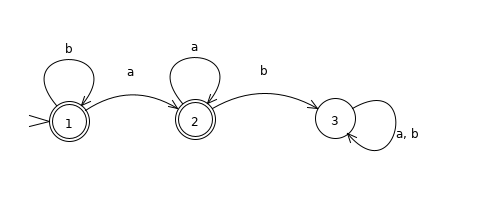
**4) Does not contain bba.**

a\*(baa\*)b+a\*(baa\*)\*bbb\*



**5) Does not contain ab.**

b\* + b\*aa\*



**6) Does not contain aba.**

b\*a(bbb\*a)\*(a(bbb\*a)\*)\*(b+bbb\*)+b**\***

