ID: 2020G018

خالد ابراهيم عبدالله الشوقي

Date: / /

#Q1.

1. $(\Lambda + a(bb)^*)$
2. $(a^* + b^* + c^*)$
3. $(c^*a + bc^*)$
4. $((aa)^* + cb(bb)^*)$
5. $a^* bc^*$

#Q2. $(1 + 10)^* (0)^*$

#Q3

1. $(aa + ab + ba + bb + \Lambda)$
2. $(a+b)(a+b)(a+b)$
3. $(\Lambda + b + bb)(a + ab + abb)$
4. $((a(aa)^* \cdot b(bb)^*)^* + ((b + bb) \cdot a(aa)^*)^*$

تابع

Date: / /

Date: / /

Q4.

1(b)

1. Language include string has at least 1(b).
2. String can start with zero or more a or b. in group of three and end with Nothing or a or b
3. language include at least 1(a)

Q5

$((b^*ab^*ab^*)^*(b^*ab^*ab^*)a^*(bab+ba)^*+aaa)^*$

Q6.

1. Language include at least 1(a) and end with Nothing or ~~nothing~~ with four(b)
2. Language include nothing or start with one(a).
3. Language start with one(a) or more and with one(b) or more numbers of a's and b's is odd
4. Langeye can include empty string or at least 2(b) and 1(a)

halan

halan

Date: / /

~~Conde~~

6. Can be empty string and must end with (a) and start with (a) or (b).

Q7.

① $a(aa)^*$, $(ab)^*a$

$\{a, aba, ababa \ldots\ldots a^n b^{n-1}\}$

② $(a^* + b)^*$, $(a+b)^*$

$\{a, b, aaa, aab, bba, \ldots\Lambda\}$

③ $(a^* + b^*)^*$, $(a+b)^*$

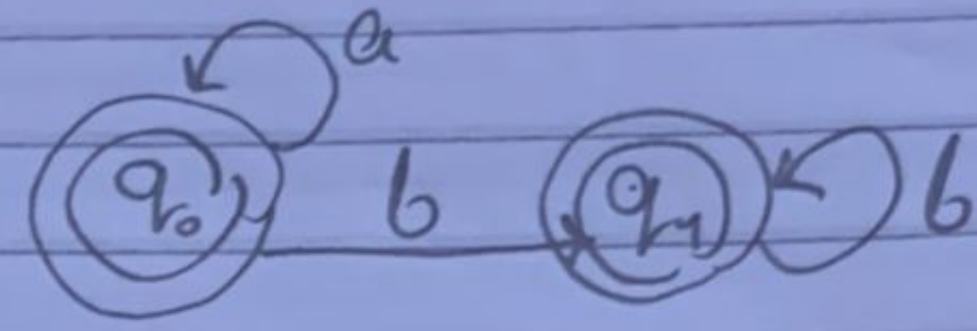
④ $(a^* bbb)^* a^*$, $a^*(bbba^*)^*$

$\{\Lambda, ab^n a\}$

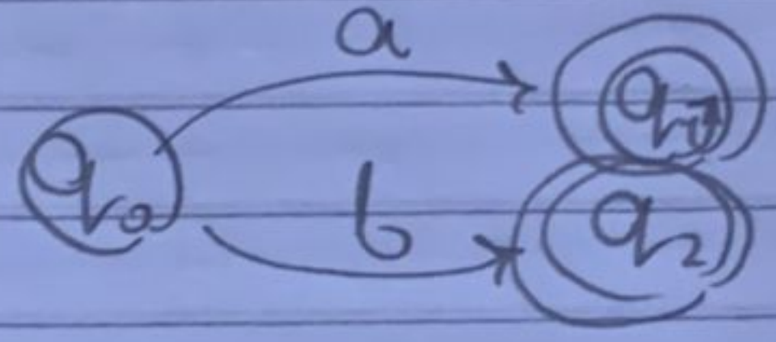
halan

→ Finite Automata DFA:

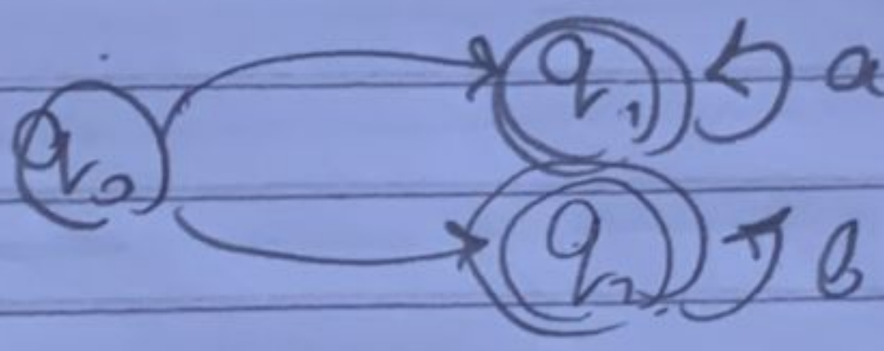
Q 1. a^*b^*



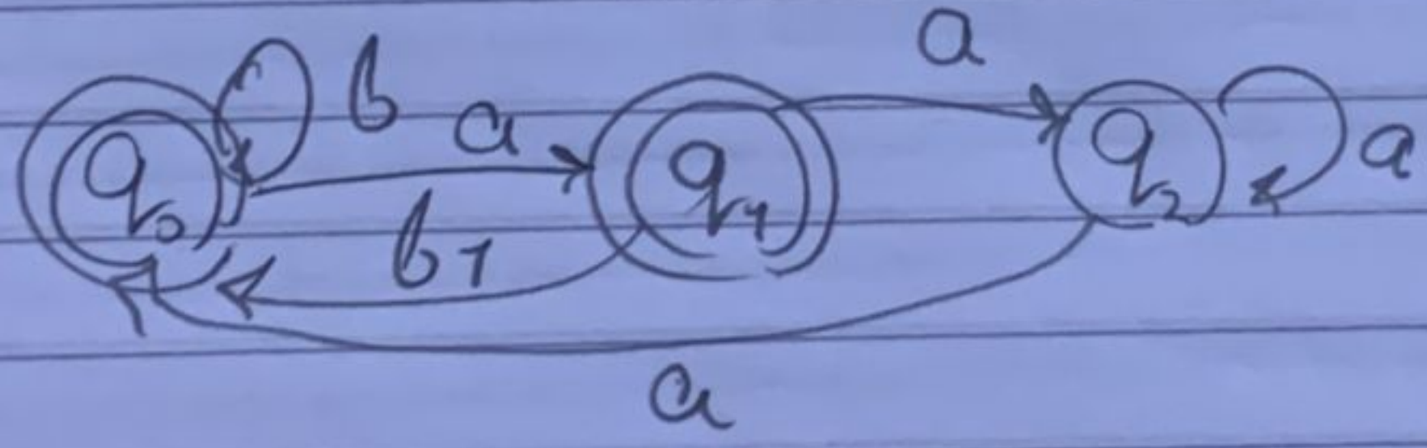
2. $(a+b)$



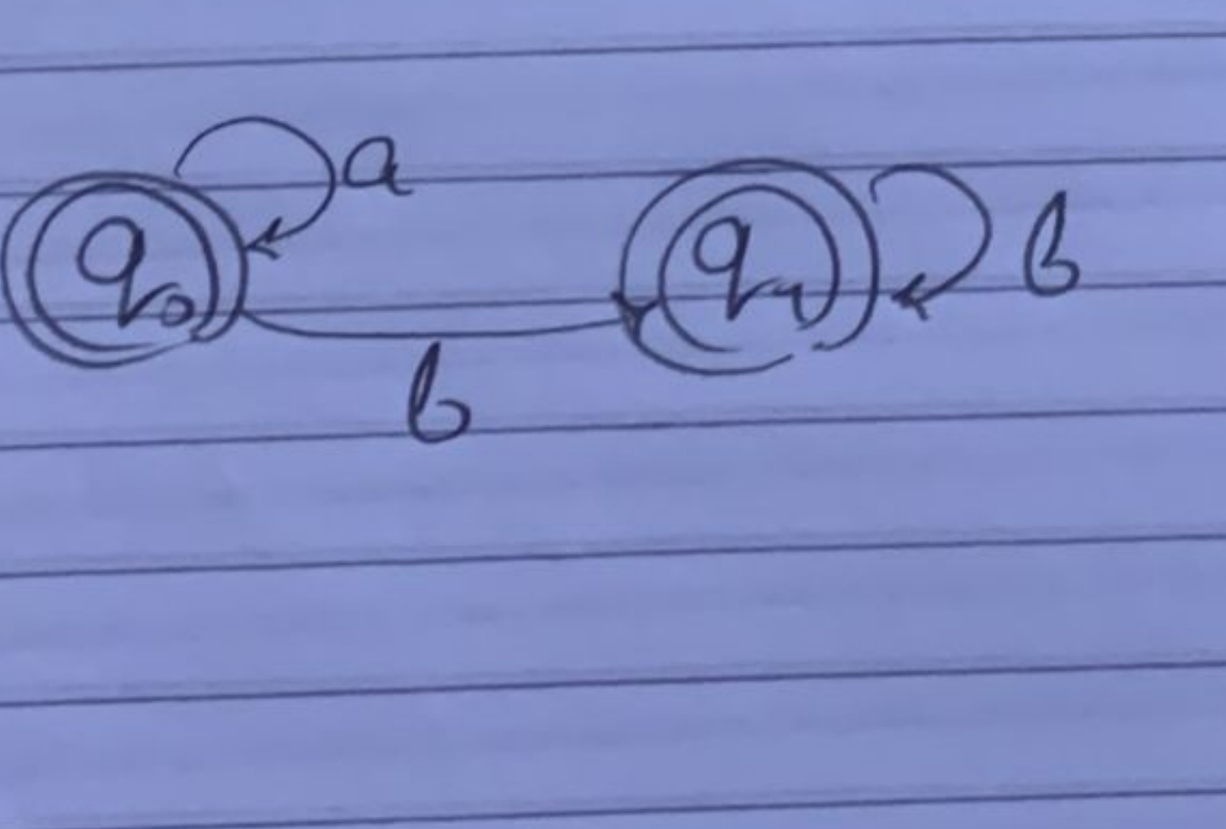
3. $a^* + b^*$



4.

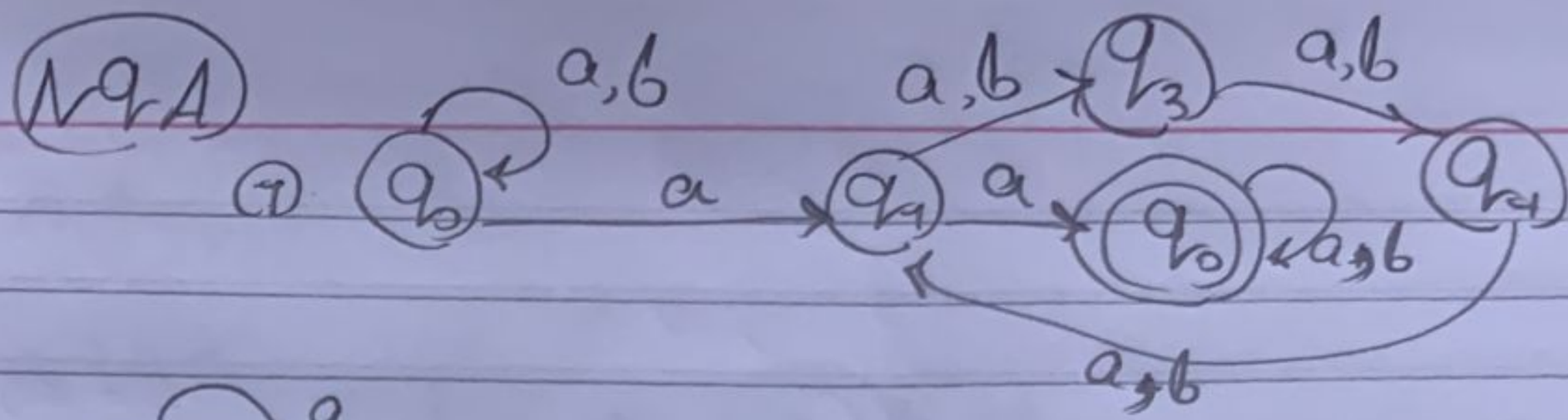


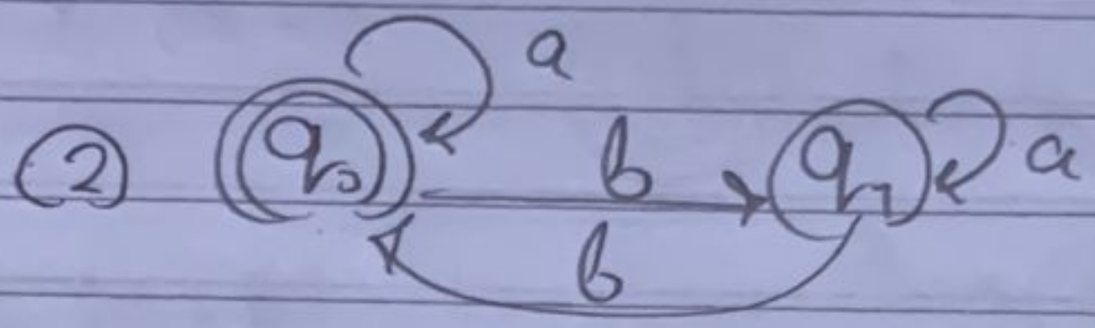
5.

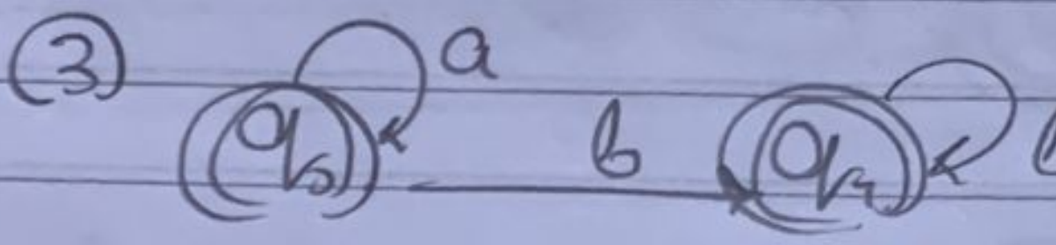
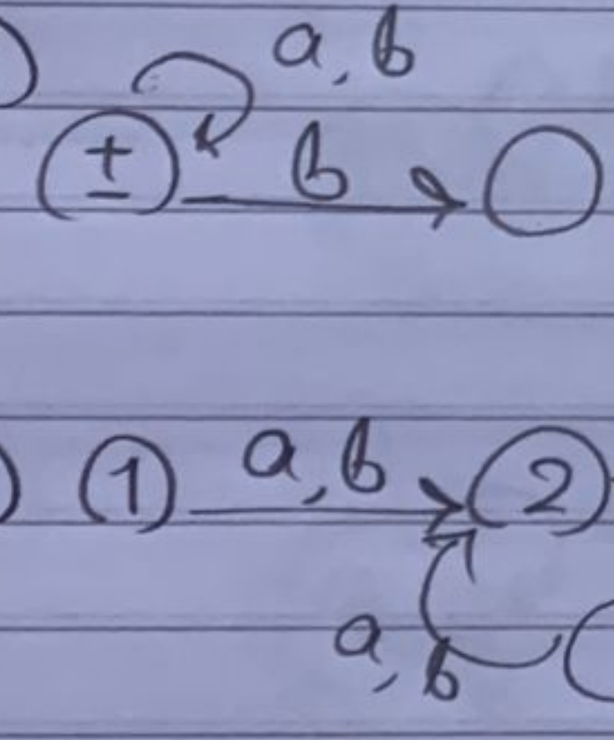
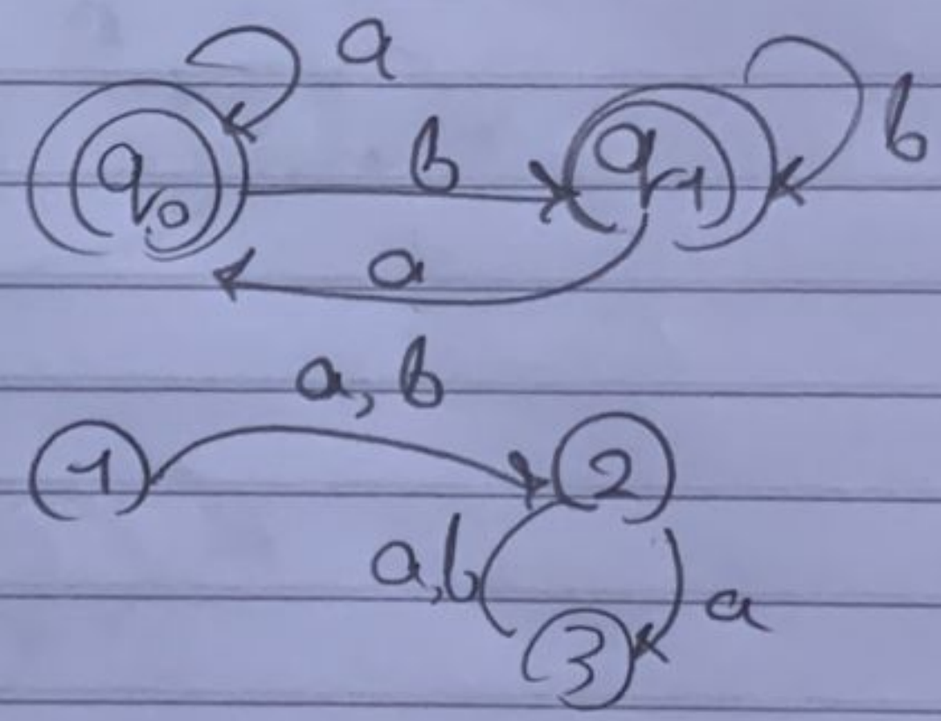
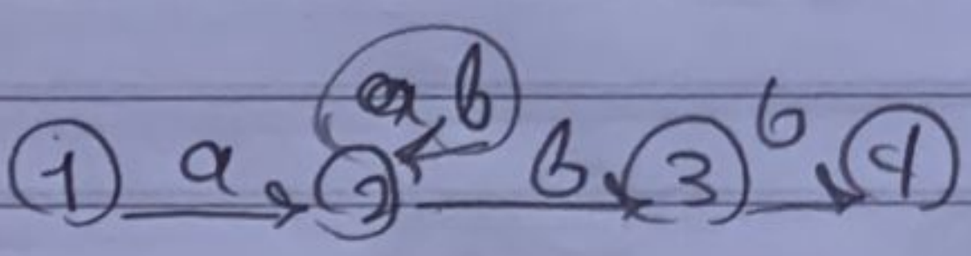
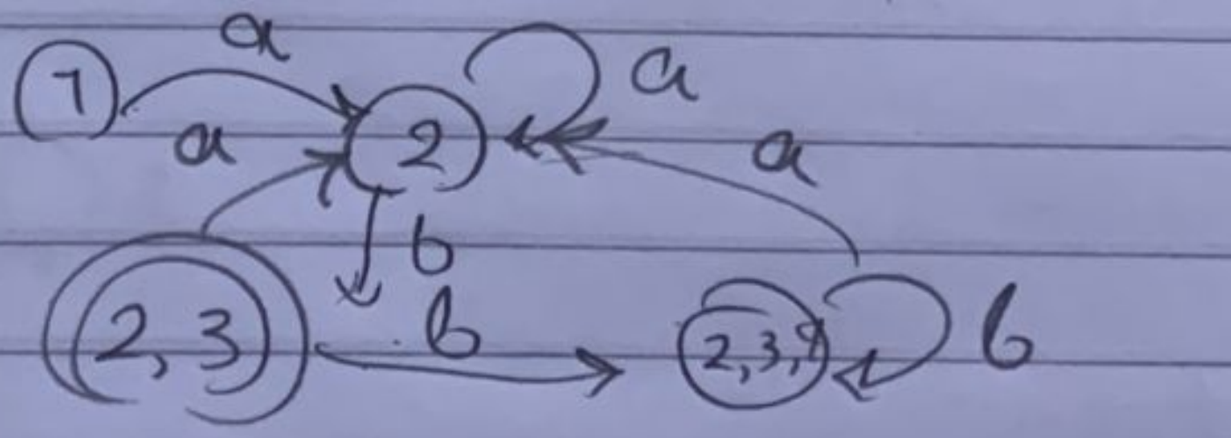
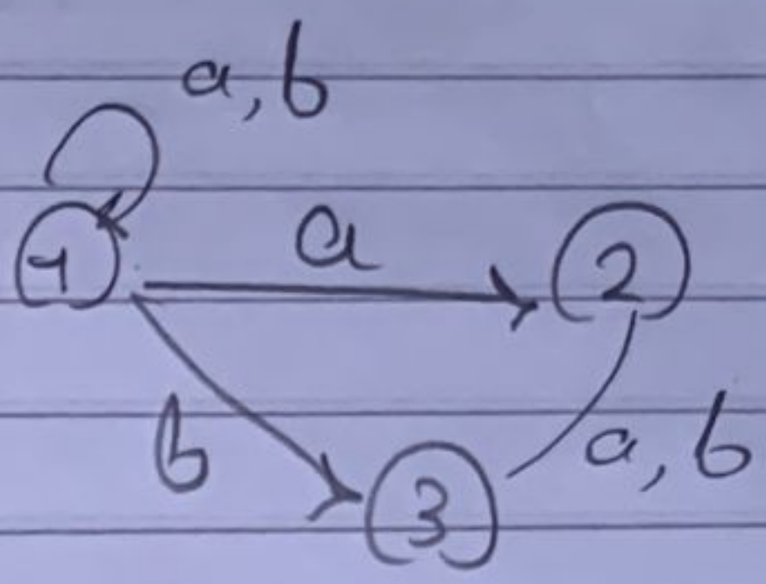
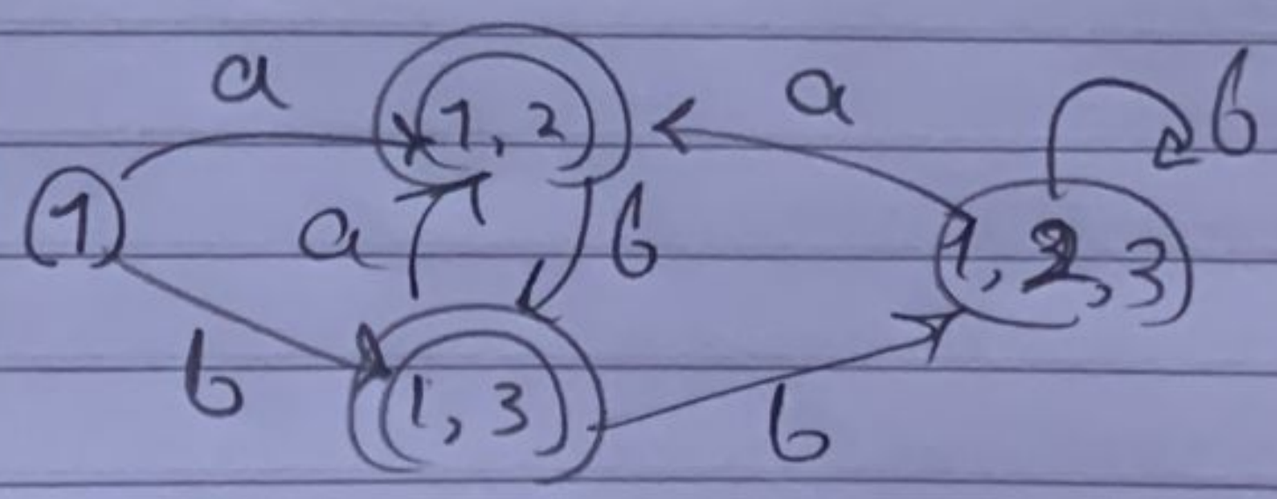


6.

NFA







NFA to DFA