

Name: Anisul Islam. Shikub

ID: 011231 0470

Section: F

Course: Theory of computation

Answer to the Question no. 1

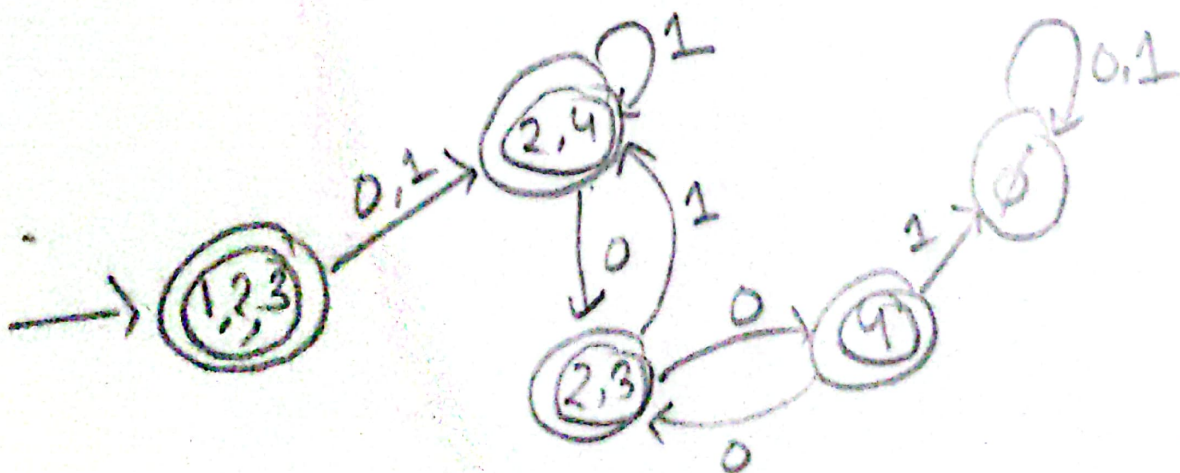
$$\text{eclose}(1) = \{1, 2, 3\}$$

$$\text{eclose}(2) = \{2\}$$

$$\text{eclose}(3) = \{2, 3\}$$

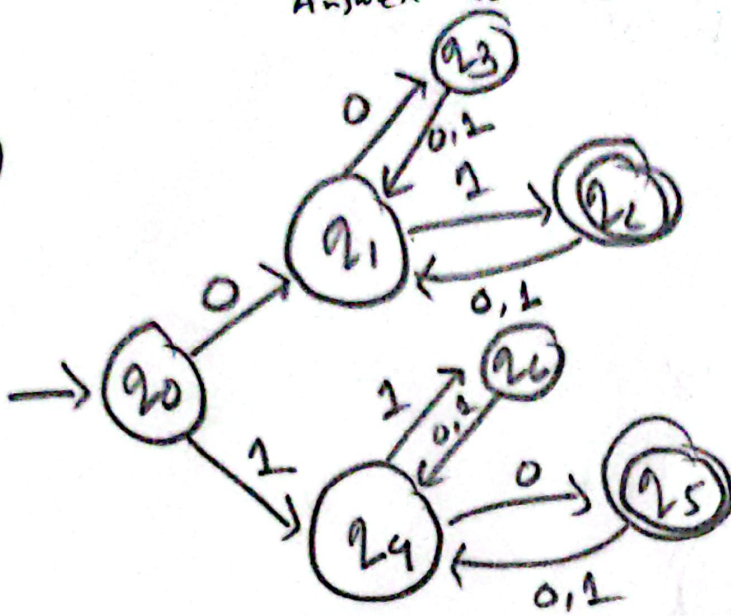
$$\text{eclose}(4) = \{4\}$$

	0	1
1,2,3	2, 4	3, 4
2,4	2, 3	2, 4
2,3	4	2, 4
4	2, 3	$\emptyset$

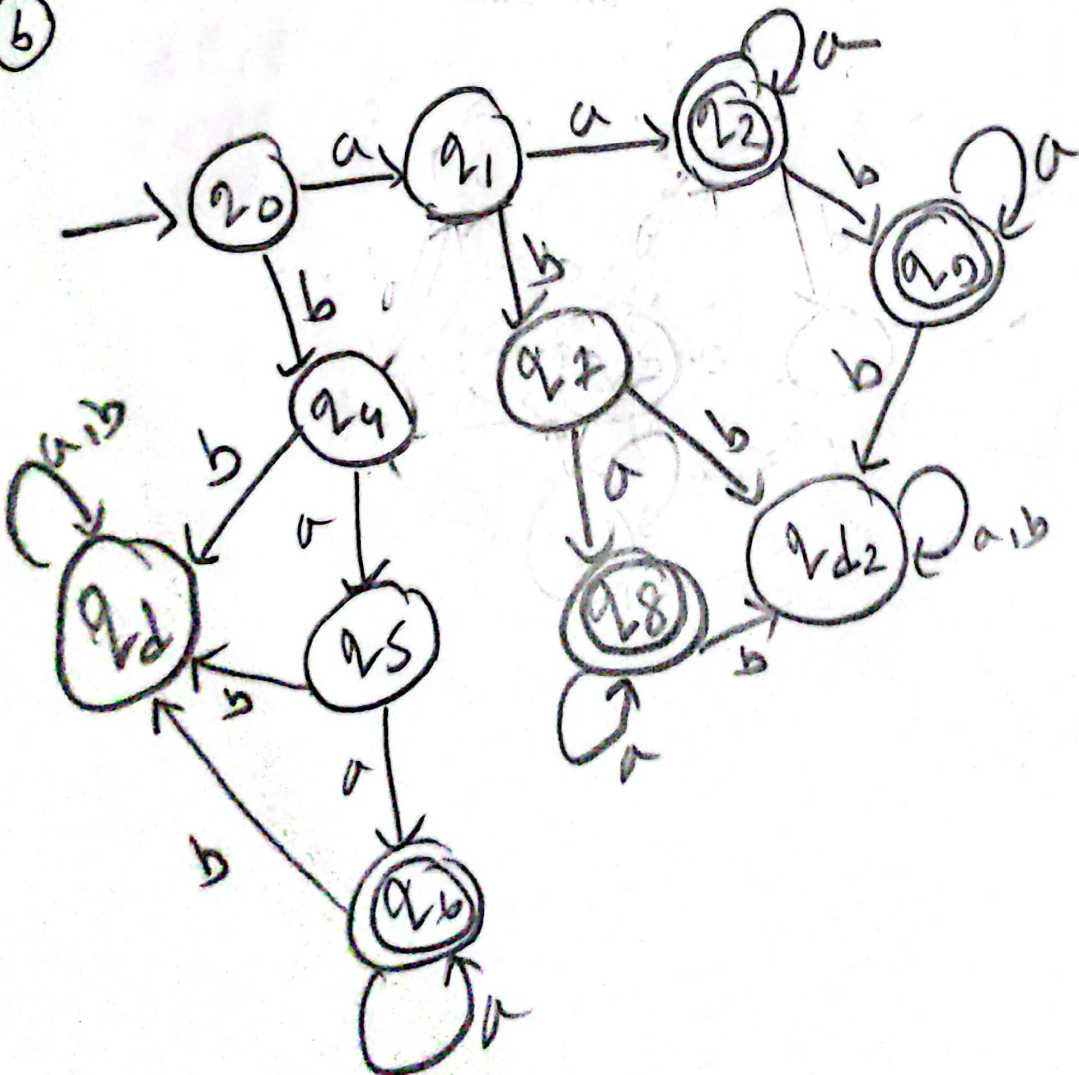


Answer to the Question no. 2

(a)



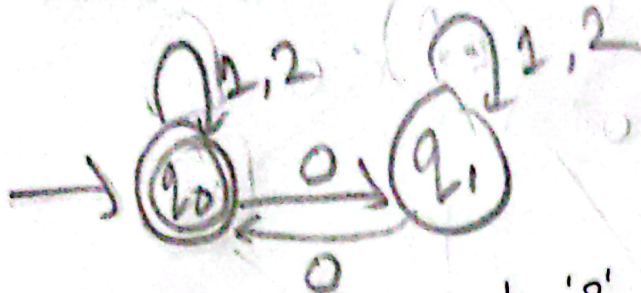
(b)



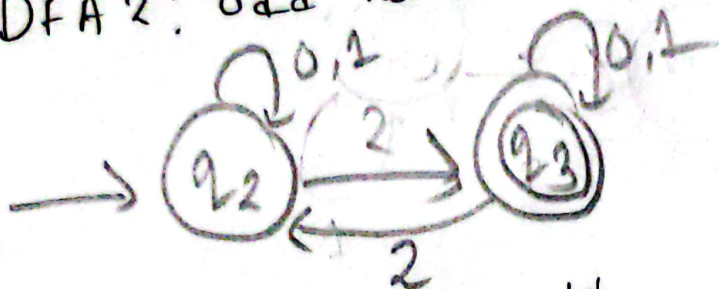


Q

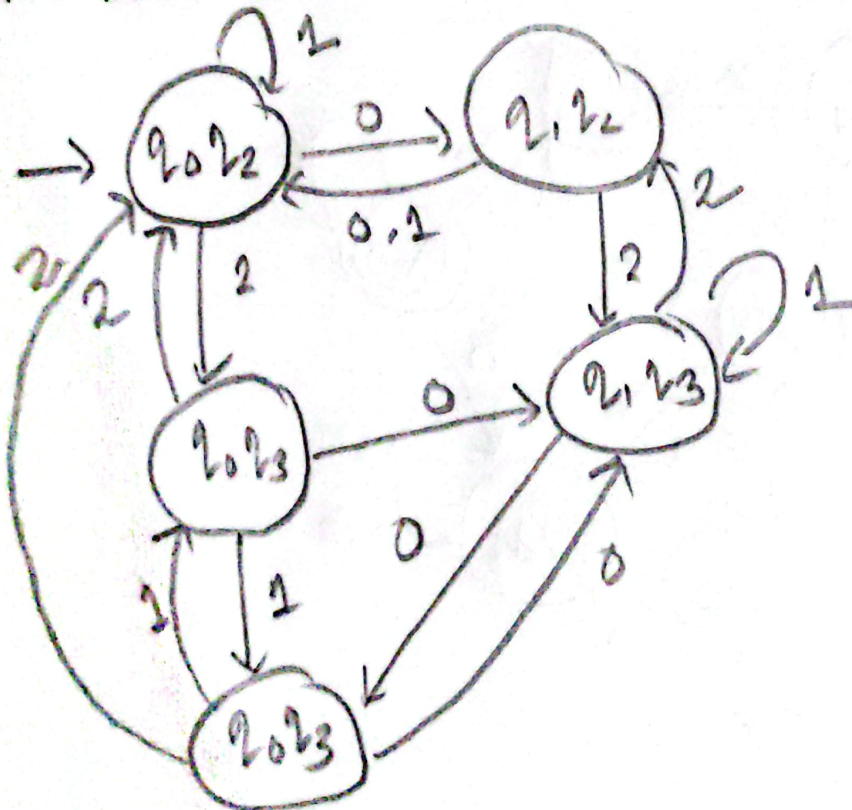
DFA 1: even no. of '0'



DFA 2: odd no. of '2'



Final DFA: even no. of '0's on odd number of '2's



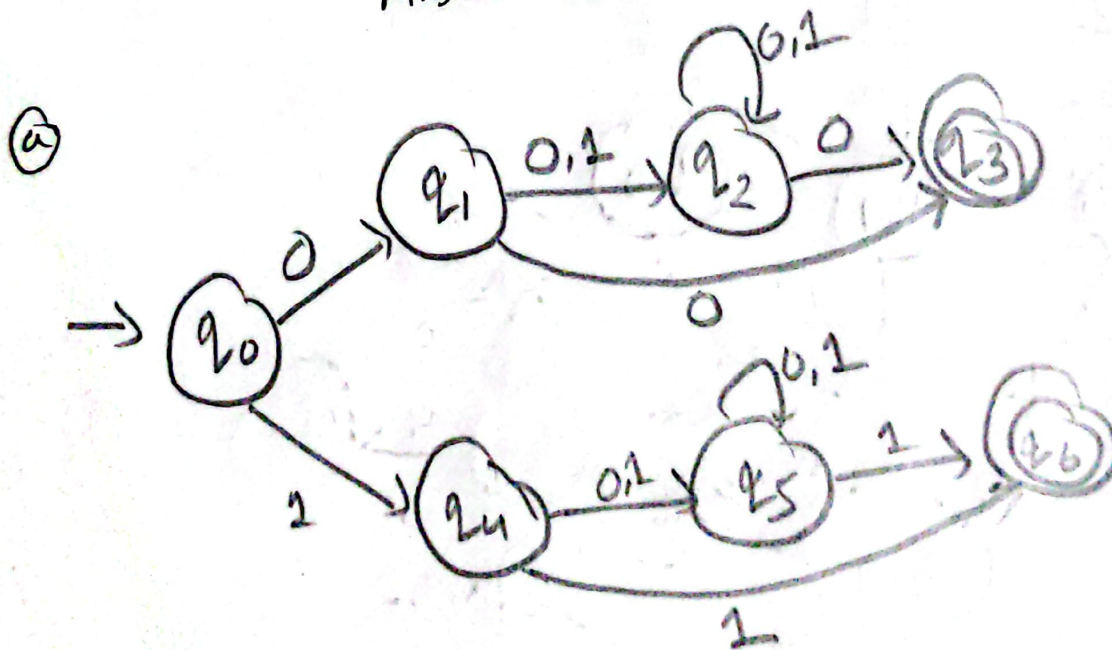
Answer to the Question no. 3

(a)  $a(a+b)((a+b)^2)^* + b((a+b)^2)^*$

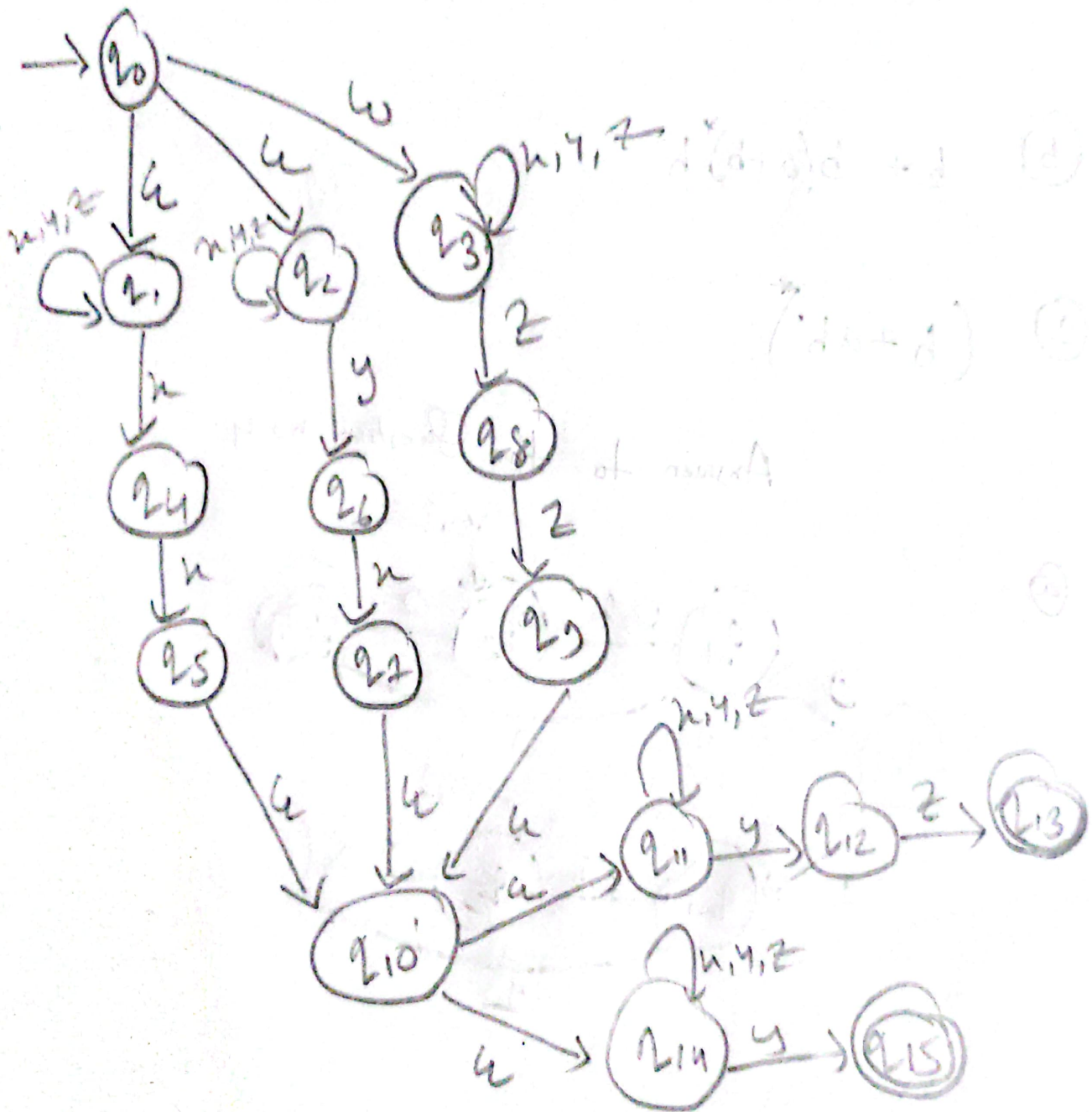
(b)  $b + b(a+b)^*b$

(c)  $(b+ab)^*$

Answer to the Question no. 4



6



(c) ans:

