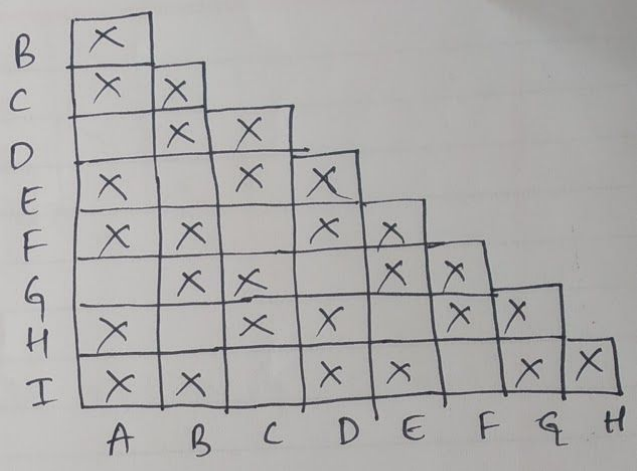
(1)

	δ	0	1
→	A	B	E
	B	C	F
*	C	D	H
	D	E	H
	E	F	I
*	F	G	B
	G	H	B
	H	I	C
*	I	A	E



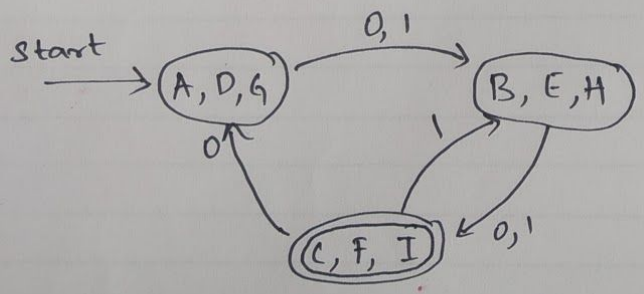
In distinguishable pairs :-

(A, D) (A, G) (D, G) ⇒ (A, D, G)
(B, H) (B, E) (E, H) ⇒ (B, E, H)
(C, F) (C, I) (F, I) ⇒ (C, F, I)

Transition table :-

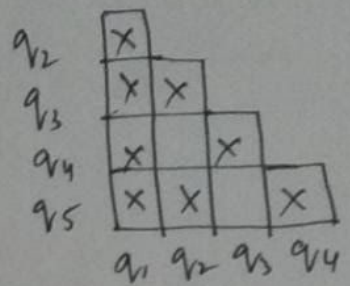
	δ	0	1
→	(A, D, G)	(B, E, H)	(B, E, H)
	(B, E, H)	(C, F, I)	(C, F, I)
*	(C, F, I)	(A, D, G)	(B, E, H)

Transition Diagram :-



(2)

	δ	0	1
→	q_1	q_2	q_3
	q_2	q_3	q_5
*	q_3	q_4	q_3
	q_4	q_3	q_5
*	q_5	q_2	q_5



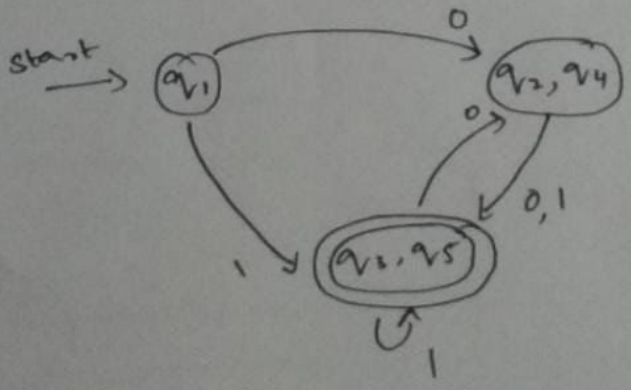
Indistinguishable pairs:-

(q_2, q_4) , (q_3, q_5)

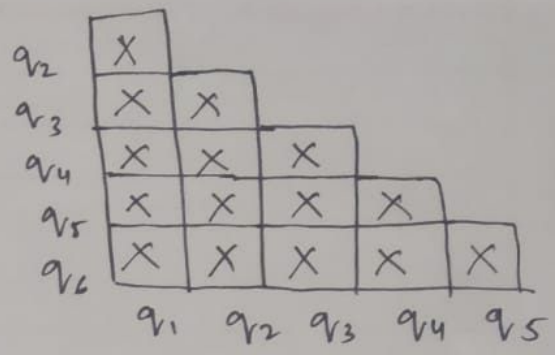
Transition table -

	δ	0	1
→	q_1	(q_2, q_4)	(q_3, q_5)
	(q_2, q_4)	(q_3, q_5)	(q_3, q_5)
*	(q_3, q_5)	(q_4, q_2)	(q_3, q_5)

DFA:-

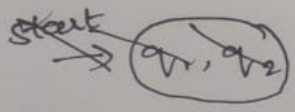


	δ	0	1
→	q_1	q_2	q_6
	q_2	q_1	q_3
*	q_3	q_2	q_4
	q_4	q_4	q_2
	q_5	q_4	q_5
*	q_6	q_5	q_4



Indistinguishable pairs - No pair.

(q_1, q_2)



DFA :-