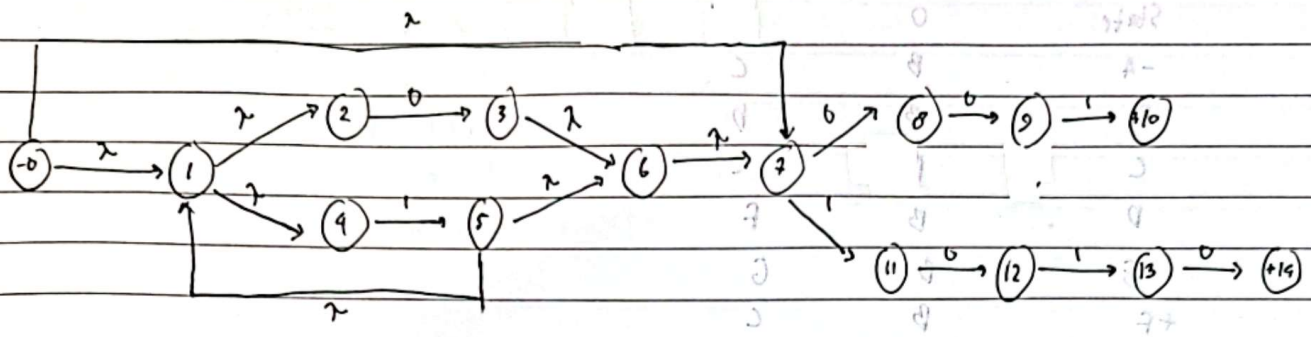
Nama : Muhammad Datta Rizky Subrisno

Nrp : 5025231207

1) 2. Penyesuaian NFA



Perhitungan :

λ-closure (0) : {0,1,2,4,7} = A

A input (0) Move (A,0) : {3,8}

λ-closure ({3,8}) : {0,1,2,3,4,6,7,8} : B

A input (1) Move (A,1) : {5,11}

λ-closure ({5,11}) : {0,1,2,4,5,6,7,11} : C

B input (0) Move (B,0) : {3,8}

λ-closure ({3,8}) : B

B input (1) Move (B,1) : {5,9}

λ-closure ({5,9}) : {0,1,2,4,5,6,7,9} : D

C input (0) Move (C,0) : {3,12}

λ-closure ({3,12}) : {0,1,2,3,4,6,7,8,12} : E

C input (1) Move (C,1) : {5,11}

λ-closure ({5,11}) : C

D input (0) Move (D,0) : {3,8}

λ-closure ({3,8}) : B

D input (1) Move (D,1) : {5,11,10}

λ-closure ({5,11,10}) : {0,1,2,4,5,6,7,10,11} : F

E input (0) Move (E,0) : {3,8}

λ-closure ({3,8}) : B

E input (1) Move (E,1) : {5,11,13}

λ-closure ({5,11,13}) : {0,1,2,4,5,6,7,11,13} : G

F input (0) Move (F,0) : {3,8}

λ-closure ({3,8}) : B

F input (1) Move (F,1) : {5,11}

λ-closure ({5,11}) : C

G input (0) Move (G,0) : {3,8,12,14}

λ-closure ({3,8,12,14}) : {0,1,2,3,4,6,7,8,12,14}

G input (1) Move (G,1) : {5,11}

λ-closure ({5,11}) : C

H input (0) Move (H,0) : {3,8}

λ-closure ({3,8}) : B

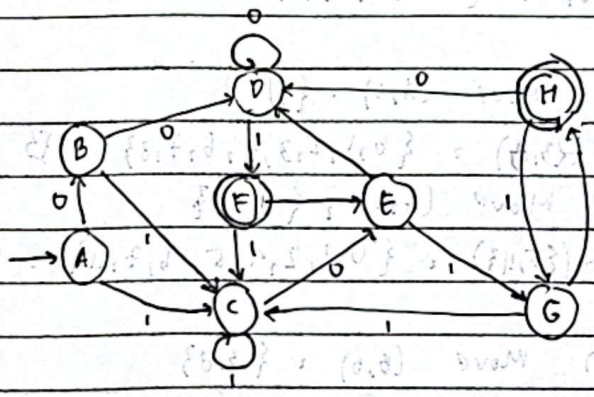
H input (1) Move (H,1) : {5,11,13}

λ-closure ({5,11,13}) : G

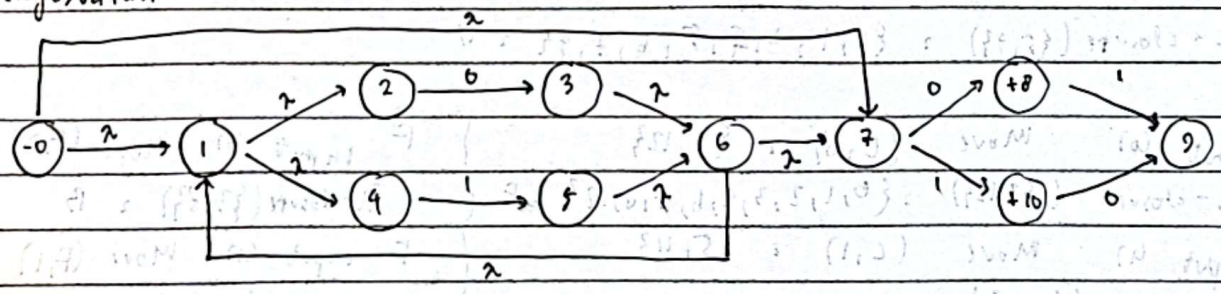
Tabel Transisi :

State	0	1
-A	B	C
B	B	D
C	E	C
D	B	F
E	B	G
+F	B	C
G	H	C
+H	B	G

Penyesuaian DFA :



b) Penyesuaian NFA



Perhitungan :

λ - closure (0) : {0,1,2,4,7} = A

A input (0) Move (A,0) = {3,8}

λ-closure ({3,8}) : {0,1,2,3,4,6,7,8} = B

A input (1) Move (A,1) = {5,11}

λ-closure ({5,11}) : {0,1,2,4,5,6,7,11} = C

B input (0) Move (B,0) : {3,8}

λ-closure ({3,8}) = B

B input (1) Move (B,1) : {5,9,11}

λ-closure ({5,9,11}) : {0,1,2,4,5,6,7,9,11} = D

C input (0) Move (C,0) = {3,8,9}
λ-closure {3,8,9} = {0,1,2,3,4,6,7,8,9} = E
C input (1) Move (C,1) = {5,11}
λ-closure {5,11} = C

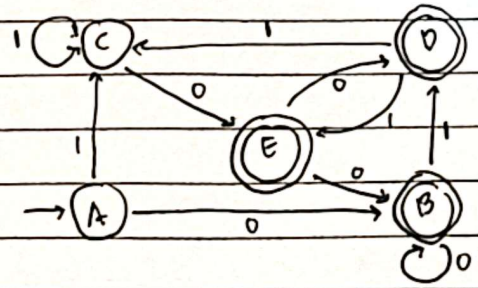
D input (0) Move (D,0) = {3,8,9}
λ-closure ({3,8,9}) = E
D input (1) Move (D,1) = {5,11}
λ-closure ({5,11}) = C

E input (0) Move (E,0) = {3,8}
λ-closure ({3,8}) = B
E input (1) Move (E,1) = {5,9,11}
λ-closure ({5,9,11}) = D

Tabel Transisi :

State	0	1
- A	B	C
+ B	B	D
+ C	E	C
+ D	E	C
+ E	B	D

Penyesuaian DFA :

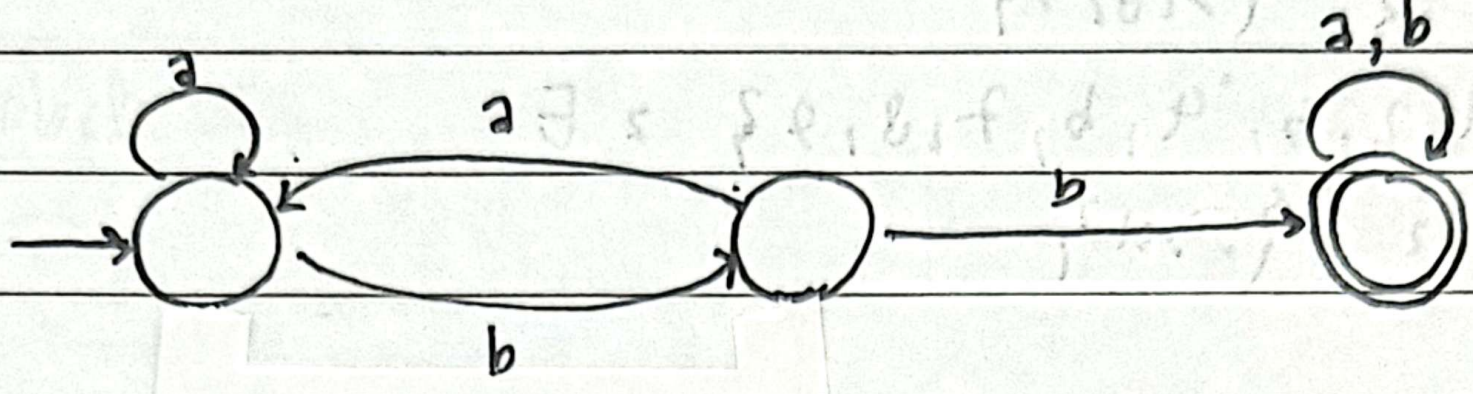


2) a) $[0^+ | 11 \ | \ 101]$

b) $(2((0)^+ (1)^*)2 | (0)^* 1)^+$

c) $((a)^* (b)^*) (abba | aaaa) ((a)^* (b)^*)$

3) a)



b)