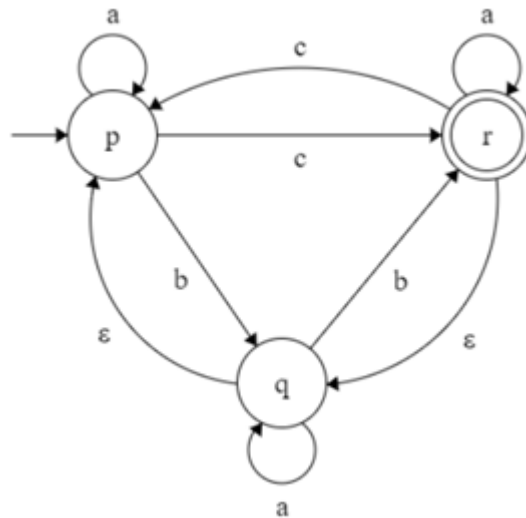


Laboratorio 5

EJERCICIOS PROPUESTOS

1) Convertir el siguiente ϵ -NFA en un DFA



$$\epsilon\text{-clausura}(p) = \{p\} \cup \{\emptyset\}$$

$$\epsilon\text{-clausura}(q) = \{q\} \cup \{p\}$$

$$\epsilon\text{-clausura}(r) = \{q\} \cup \{p, q\}$$

Estados	ϵ	a	b	c
->p	\emptyset	{p}	{q}	{r}
q	{p}	{q}	{r}	\emptyset
*r	{q}	{r}	\emptyset	{p}

AFD

Estados	a	b	c
$\rightarrow \{p\} \cup \{\emptyset\}$	$\{p\} \cup \{\emptyset\}$	$\{q\} \cup \{p\}$	$\{r\} \cup \{p,q\}$
$\{q\} \cup \{p\}$	$\{p,q\} \cup \{p\}$	$\{q,r\} \cup \{p,q\}$	$\{r\} \cup \{p,q\}$
$\ast\{r\} \cup \{p,q\}$	$\{p,q,r\} \cup \{p,q\}$	$\{q,r\} \cup \{p,q\}$	$\{p,r\} \cup \{p,q\}$
$\{p,q\} \cup \{p\}$	$\{p,q\} \cup \{p\}$	$\{q,r\} \cup \{p,q\}$	$\{r\} \cup \{p,q\}$
$\ast\{q,r\} \cup \{p,q\}$	$\{p,q,r\} \cup \{p,q\}$	$\{q,r\} \cup \{p,q\}$	$\{p,r\} \cup \{p,q\}$
$\ast\{p,q,r\} \cup \{p,q\}$	$\{p,q,r\} \cup \{p,q\}$	$\{q,r\} \cup \{p,q\}$	$\{p,r\} \cup \{p,q\}$
$\ast\{p,r\} \cup \{p,q\}$	$\{p,q,r\} \cup \{p,q\}$	$\{q,r\} \cup \{p,q\}$	$\{p,r\} \cup \{p,q\}$

Estados	a	b	c
$\rightarrow Q0$	Q0	Q1	Q2
Q1	Q3	Q4	Q2
$\ast Q2$	Q5	Q4	Q6
Q3	Q3	Q4	Q2
$\ast Q4$	Q5	Q4	Q6
$\ast Q5$	Q5	Q4	Q6
$\ast Q6$	Q5	Q4	Q6

