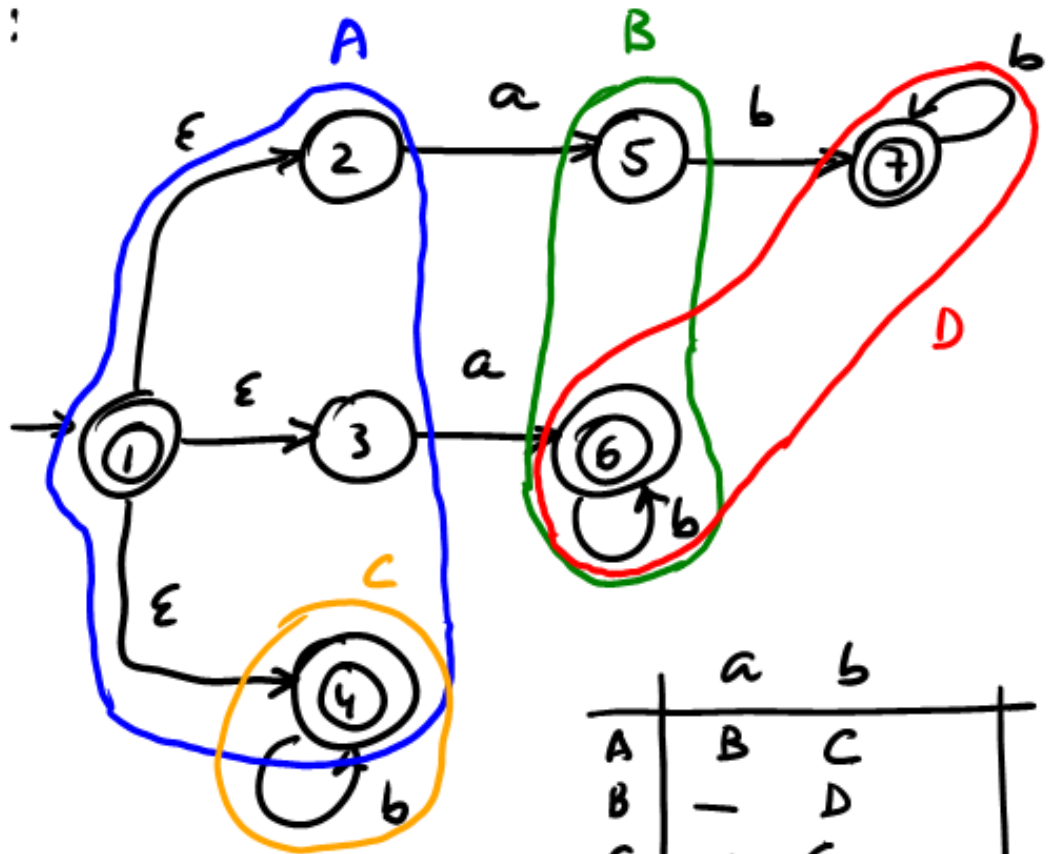


GABARITO
EXAME FINAL
MC910
2510

QUESTÃO 1:

NFA



$$A = \{1, 2, 3, 4\}$$

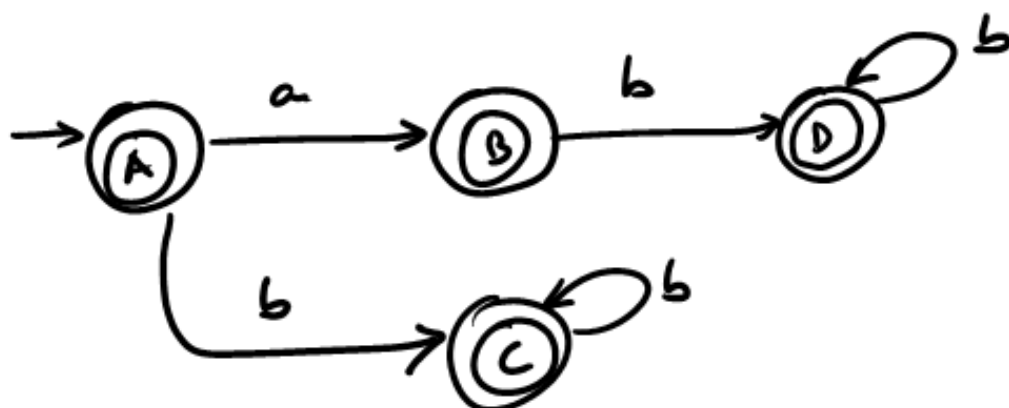
$$B = \{5, 6\}$$

$$C = \{4\}$$

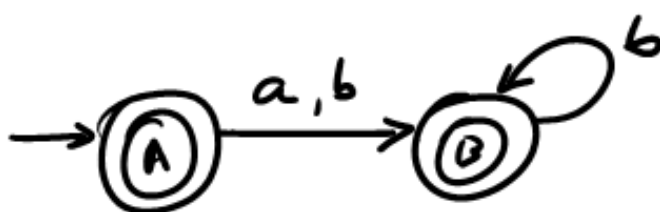
$$D = \{6, 7\}$$

	a	b
A	B	C
B	—	D
C	—	C
D	—	D

DFA



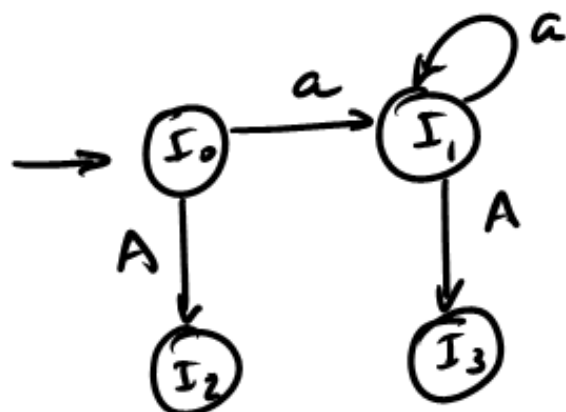
DFA
MINIMIZADO



QUESTÃO 2 :

(a) $I_0: S \rightarrow \cdot A \$$
 $A \rightarrow \cdot a A$
 $A \rightarrow \cdot a$

$I_2: A \rightarrow A \cdot \$$



$I_1: A \rightarrow a \cdot A$
 $A \rightarrow a \cdot$ REDUCE 2
 $A \rightarrow \cdot a A$ SHIFT a
 $A \rightarrow \cdot a$ SHIFT a

$I_3: A \rightarrow a A \cdot$

	a	\$	S	A
I_0	s1			g2
I_1	s1/r2 r2			g3
I_2		a		
I_3	r1	r1		

NÃO
LR(0)

(b) CONFLITO SHIFT/REDUCE EM (I_1, a) .

$FOLLOW(A) = \{ \$ \}$

NOVA TABELA

	a	\$	S A
I_0	s1		g2
I_1	s1	r2	g3
I_2		a	
I_3		r1	

CONFLITO ELIMINADO!
É SLR.

QUESTÃO 3 :

	1	2	3	4	5
a_0	∞	∞	∞	∞	2
b_0	∞	∞	∞	∞	2
c_0	∞	∞	∞	∞	2
d_0	∞	∞	∞	∞	2
e_0	∞	∞	∞	∞	2
t_1	∞	∞	$2+1+2=5$	∞	∞
t_2	∞	∞	$2+1+2=5$	∞	∞
t_3	$2+2+2+2=8$	∞	∞	$2+1+5=8$	∞
t_4	∞	$5+1+2+5=13$	∞	$5+1+8=14$	∞

NOTA : PADRÃO 1 NÃO É COMUTATIVO

TOTAL = 13

QUESTÃO 4:

```
class A {  
    int x;  
}
```

```
class B {  
    int y;  
}
```

NOTA:

"FREE" PODE
OCORRER DEPOIS.

```
main() {
```

```
    |
```

```
    A a = new A();
```

```
    a.count = 1;
```

```
    B b = new B();
```

```
    b.count = 1;
```

```
    |
```

```
    if (a.x < b.y) {
```

```
        b.count--;
```

```
        b = (B) a;
```

```
        b.count++;
```

```
    } else {
```

```
        a.count--;
```

```
        a = b;
```

```
        a.count++;
```

```
    }
```

```
}
```