

C1) This is a recursive descent parser. Write the grammar from this parser.

```

block()
    match('{')
    stmt()
    match('}')

stmt()
    if( currenttoken == 'id')
        stmt1()
        stmt()

stmt1()
    match('id')
    match('=')
    expr()
    match(';')

expr()
    match('id')
    exprs()

exprs()
    if( currenttoken == '+')
        match('+')
        exprs()
    
```

$block ::= \{ stmt \}$   
 $stmt ::= stmt1 stmt \mid \epsilon$   
 $stmt1 ::= id = expr ;$   
 $expr ::= id \ exprs$   
 $exprs ::= + \ exprs \mid \epsilon$

C2) Given this grammar, compute First and Follow set, draw the parsing table

```

dcl = ID dcl2
dcl2 = ( formal ) stmt | [ NUM ]
formal = ID formals | empty
formals = , formal | empty
    
```

dcl	ID	\$
dcl2	(, [	)
formal	ID, empty	)
formals	, , empty	-

	ID	(	[	,	)
dcl	1				
dcl2		2	3		
formal	4				5
formals				6	

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```

dcl	f	s
dcl2		