CFGS:

- **PROGRAM INIT**

\<Start\> → \<MST\> \<Start\> | NULL

MST → \<SST'\> \<MST\> | NULL

SST' → \<Exp\> | \<Init\> | \<When\> | \<Until\> | \<FromTill\> | \<MatchFor\> | \<Task\>

- **WHEN-ELSE**

When → When \<Cond\> {\<MST\>} \<OElse\>

Cond → \<Exp\> RO \<Exp\> | \<Id/Const\>

MST → \<SST\> \<MST\> | NULL

SST → \<Exp\> | \<Decl\> | \<Init\> | \<When\> | \<Until\> | \<FromTill\> | \<MatchFor\>

OElse → \<Else\> | \<ElseWhen\> | NULL

ElseWhen → ElseWhen \<Cond\> {\<MST\>} \<OElse\>

Else → Else {\<MST\>}

- **UNTIL LOOP**

Until → Until \<Cond\> {\<MST\>}

Cond → \<Exp\> \<Cond'\>

Cond' → RO \<Exp\> | NULL

MST → \<SST\> \<MST\> | NULL

SST → \<Exp\> | \<Init\> | \<When\> | \<Until\> | \<FromTill\> | \<MatchFor\>

- **FROM-TILL LOOP**

FromTill → From \<Exp\> Till \<Exp\> \<By\> {\<MST\>}

By → \<Exp\> | NULL

MST → \<SST\> \<MST\> | NULL

SST → \<Exp\> | \<Init\> | \<Decl\> |\<When\> | \<Until\> | \<FromTill\> | \<MatchFor\>

- **MATCH-FOR**

Match → Match \<Exp\> {\<For\> \<Default\>}

For → For <Exp> {<Mst>} <For> | NULL

Default→ Default {<Mst> } | NULL

Mst → <Sst> <Mst> | NULL

Sst → <Exp> | <Init> | <When> | <Until> | <FromTill> | <Matchfor>

- **FUNCTION**

Task → Task ID (<Arg>) <Obody>

<Obody> → {<MST> <Pass>} | NULL

<Pass> → Pass <PassA> | NULL

<PassA> → <Exp> | NULL

<Arg> → DT ID <Arg2> | NULL

<Arg2> → , DT ID <Arg2> | NULL

- **DECLARATION**

Decl → DT ID <List> | List ID <List>

<List> → , ID <List>| NULL

- **DECLARATION + INITIALIZATION**

Init → Set <InitA>

InitA → DT ID <List> To<Exp> | ID <List> To <InitB> | List ID <List>To[<OExp>]

InitB → <Exp> | [<OExp>]

<List> → , ID <List>| NULL

<OExp> → <Exp><O-ExpA> | NULL

<OExpA> → , <Exp> <OExpA> | NULL

- **EXPRESSION**

<E> → <T> <E'>

<E'> → ADDSUB <T> <E'>

<E'> → NULL

<T> → <F> <T'>

<T'> → DIVMUL <F> <T'>

\<T'\> → NULL

\<F\> → ID \<Inc\> | INCDEC ID | Const | NOT ID

\<Inc\> → INCDEC | NULL