# 1 Decls

```
PROC
                 \rightarrow procedure C_PROC is
                         DECLS
                      begin
                        SENTS
                      end procedure;
                     DECLS DECL
DECLS
DECL
                    PROC
                      DECL_VAR
                      DECL\_T
                     DECL_RVARS DECL_VAR
DECL_RVARS
                      DECL_VAR
DECL\_VAR
                 \rightarrow L_ID:ID;
                     L_{ID}:const ID:=EXPR;
DECL_T
                 \rightarrow type ID is DECL_T_CONT
DECL\_T\_CONT
                 \rightarrow new RANG;
                      {\bf record}
                        DECL_RVARS
                      end record;
                      \mathbf{array}\ (L\_ID)\ \mathbf{of}\ ID;
```

# 1.1 Auxliars

ARG

 $\begin{array}{ccc} \text{C\_PROC} & & \rightarrow & \text{ID(ARGS)} \\ & & \text{ID} \end{array}$ 

 $\begin{array}{ccc} \text{ARGS} & & \rightarrow & \text{ARGS;ARG} \\ | & \text{ARG} \end{array}$ 

 $\rightarrow$  L\_ID:MODE ID

 $MODE \rightarrow in$ 

out in out

 $\begin{array}{ccc} \text{L\_ID} & & \rightarrow & \text{L\_ID,ID} \\ & & \text{ID} \end{array}$ 

 ${\rm RANG} \qquad \qquad \rightarrow \quad {\rm ID} \; {\bf range} \; {\rm RANG\_CONT}$ 

 ${\rm RANG\_CONT} \quad \rightarrow \quad {\rm OP\_U\ LIT..OP\_U\ LIT}$ 

| ID..ID | ID

# 2 Sents

 $\begin{array}{ccc} \text{SENTS} & \rightarrow & \text{SENTS\_CONT} \\ & & \textbf{null}; \end{array}$ 

 ${\tt SENTS\_CONT} \quad \to \quad {\tt SENTS\_CONT} \ {\tt SENT}$ 

SENT

 $\begin{array}{ccc} \text{SENT} & & \rightarrow & \text{S\_ITER} \end{array}$ 

| S\_COND | S\_CRIDA | S\_ASSIGN

S\_ITER  $\rightarrow$  while EXPR loop

 $\begin{array}{c} {\rm SENTS} \\ {\bf end~loop}; \end{array}$ 

 $S_{-}COND \rightarrow \mathbf{if} EXPR \mathbf{then}$ 

SENTS

end if;

if EXPR then

SENTS

 $\mathbf{else}$ 

SENTS end if;

,

 $\begin{array}{ll} \rightarrow & \mathrm{ID}(\mathrm{PARAMS}); \\ | & \mathrm{ID}; \end{array}$ 

 $S_ASSIGN \rightarrow REF:=EXPR;$ 

#### 2.1 Auxiliars

S\_CRIDA

REF  $\rightarrow$  REF.CAMP

CAMP

 ${\rm CAMP} \qquad \rightarrow \quad {\rm ID}$ 

| ID(L\_IDX)

 $\text{LJDX} \qquad \rightarrow \quad \text{LJDX,IDX}$ 

IDX

 $\mathrm{IDX} \qquad \quad \to \quad \mathrm{EXPR}$ 

 $PARAMS \rightarrow L_EXPR$ 

# 3 Exprs

# 3.1 Auxiliars

$$OP\_B\_C \rightarrow + | -$$

OP\_B\_E

$$\mathrm{OP}_{-\!E} \longrightarrow **$$

$$\mathrm{OP\_N} \qquad \rightarrow \quad \mathbf{not}$$

OP\_REL

$$\mathrm{OP}_{\text{-}}\mathrm{U} \qquad \rightarrow \quad \text{-} \mid \lambda$$

$$\mathrm{TUPLA} \quad \rightarrow \quad (\mathrm{L}\text{-}\mathrm{EXPR})$$

$$\begin{array}{ccc} \text{L\_EXPR} & \rightarrow & \text{L\_EXPR, EXPR} \\ | & \text{EXPR} \end{array}$$