**Bold: terminals**

*Non-bold: non-terminals*

1. *program* --> **program id (**idlst**);**

*declarations*

*subdeclarations*

*compound\_statement*

**.**

2.1 *idlst* --> **id** *idlst’*

2.2 *idlst’* --> **, id** *idlst’*

2.3 *idlst’* --> ϵ

3.1 *declarations* --> **var** **id:** *type* **;** *declarations*

3.2 *declarations* --> ϵ

4.1 *type* --> *standard\_type*

4.2 *type* --> **array** [**num** **..** **num**] **of** *standard\_type*

5.1 *standard*\_*type* --> **integer**

5.2 *standard\_type*  --> **real**

6.1 *subdeclarations* --> *subdeclaration* **;** *subdeclarations*

6.2 *subdeclarations* --> ϵ

7. *subdeclaration* --> subprogram\_head *declarations subdeclarations* *compound\_statement*

8. *subprogram\_head* --> **procedure** **id** *arguments* **;**

9.1 *arguments* --> **(***parameter\_list***)**

9.2 *arguments* --> ϵ

10.1 *parameter\_list* --> **id** **:** *type parameter\_list’*

10.2 *parameter\_list’*  --> **;** ***id*** **:** *type parameter\_list’*

10.3 *parameter\_list’*  --> ϵ

11. *compound\_statement* --> **begin**

*optional\_statements*

**end**

12.1 *optional\_statements* --> *statement\_list*

12.2 *optional\_statements* --> ϵ

13.1 *statement\_list --> statement statement\_list’*

13.2 *statement\_list’ -->* **;** *statement statement\_list’*

13.3 *statement\_list’ -->* ϵ

14.1 *statement* --> *variable* **assignop** *expression*

14.2 *statement* --> *procedure\_statement*

14.3 *statement* --> *compound\_statement*

14.4 *statement* --> **while** *expression* **do** *statement*

14.5 *statement* --> **if** *expression* **then** *statement* *else*

15.1 *variable* --> **id** *array*

16.1 *procedure\_statement* --> **call** **id** *express\_list\_option*

17.1 *expression\_list*  --> *expression expression\_list’*

17.2 *expression\_list* ‘ --> **,** *expression expression\_list’*

17.3 *expression\_list* ‘ --> ϵ

18.1 *expression* --> *simple\_expression expression’*

18.2 *expression’* --> **relop** *simple\_expression*

18.3 *expression’* --> ϵ

19.1 *simple\_expression* --> *term simple\_expression’*

19.2 *simple\_expression* --> *sign term simple\_expression’*

19.3 *simple\_expression’* --> **addop** *term simple\_expression’*

19.4 *simple\_expression’* --> ϵ

20.1 *term* --> *factor term’*

20.2 *term’* --> **mulop** *factor term’*

20.3 *term’* --> ϵ

21.1 *factor* --> **id** *factor’*

21.2 *factor* --> **num**

21.3 *factor* --> ( *expression* )

21.4 *factor* --> **not** *factor*

21.5 *factor’* --> *[expression]*

21.6 *factor’* --> ϵ

22.1 *sign* --> +

22.2 *sign* --> -

23.1 *else* --> **else** *statement*

23.2 *else* --> ϵ

24.1 *array* --> **[***expression***]**

24.2 array --> ϵ

25.1 *express\_list\_option -->* **(***expression\_list* **)**

25.2 *express\_list\_option -->* ϵ