

1. Original Grammar

W -> PROGRAM B; D BEGIN I END.

B -> UC

C -> OC | UC | λ

D -> H : G;

G -> B, G | B

H -> INTEGER

I -> J | JI

J -> K | A

K -> PRINT(B);

A -> B = E;

E -> E + T | E - T | T

T -> T * F | T / F | F

F -> B | N | (E)

N -> LOM

L -> +|-| λ

M -> OM| λ

O -> 0|1|2|3|4|5|6|7|8|9

U -> P | Q | R | S

Non-Terminal	
<prog>	W
<identifier>	B
<more-id-digit>	C
<dec-list>	D
<dec>	G
<type>	H
<stat-list>	I
<stat>	J
<print>	K
<assign>	A
<expr>	E
<term>	T
<factor>	F
<number>	N
<sign>	L
<more-digit>	M
<digit>	O
<id>	U